AD-A237 068

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1

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Data Base Documentation Book for WR-ALC/MANPSB (Sheet Metal)

5. FUNDING NUMBERS

Contract

6. AUTHOR(S)

McDonnell Douglas Missile Systems Company

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

McDonnell Douglas Missile Systems Company
St. Louis, Missouri 63166

8. PERFORMING ORGANIZATION REPORT NUMBER

F33600-88-D-0567

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

HQ AFLC/LGME
WPAFB OH 45433

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

F33600-88-D-0567

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Original contains blueprints

Prepared in cooperation with WR-ALC & HQ AFLC

12a. DISTRIBUTION/AVAILABILITY STATEMENT

Distribution Statement A

12b. DISTRIBUTION CODE

13. ABSTRACT *(Maximum 200 words)*

Technology Insertion (TI)/Industrial Process Improvement (IPI) Data Base Documentation Book Volume 7 for WR-ALC/MANPSB (Sheet Metal). This document contains detailed information about layouts equipment and processes for this RCC.

14. SUBJECT TERMS TECHNOLOGY INSERTION, MAINTENANCE, AFLC, AF, EQUIPMENT, METALS,

15. NUMBER OF PAGES 200

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	Unclassified

TECHNOLOGY INSERTION-ENGINEERING SERVICES
PROCESS CHARACTERIZATION
TASK ORDER NO. 1
(BLOCK 1)

DATABASE DOCUMENTATION BOOK

WR-ALC

MANPSB

CONTRACT SUMMARY REPORT
14 AUGUST 1989

CONTRACT NO. F33600-88-D-0567
CDRL SEQUENCE NO. B008

MCDONNELL DOUGLAS
McDonnell Douglas Missile Systems Company
St. Louis, Missouri 63166-0516 (314) 232-0232

1.0 Identification of RCC

Resource Control Center (RCC) MANPSB has been identified by the statement of work of the contract F33600-88-D-0567 for process characterization.

2.0 General Information

MANPSB is a unique RCC under the MANPS section of the Industrial Products Division (MAN) at WR-ALC. This RCC has two sheet metal sections, a tubing and cable section, template and block section and a wood shop. This RCC is located all over Building 169 based on the nature of job and equipment.

The two sheet metal manufacturing sections are located next to each other. Workload is based on new parts required by other repair RCCs and it fluctuates considerably. At this time, more new parts are manufactured for F-15 than C-130 and C-141.

2.1 Facility Layout Drawing

Facility layout drawing of RCC MANPSB does represent As-Is condition.

Facility layout is not efficient. At this time the equipment was grouped by category not by the flow of process.

The RCC supervisor's portable offices faces the main aisle and blocks the view to see his workforce.

2.2 Equipment

RCC MANPSB of WR-ALC is basically a sheet metal manufacturing shop. This RCC has presses from 250 ton Erie to 80 ton press. Also has varieties of band saw, turret punch and metal shears. List of special machines include wiedematic, N. C. tube bender, stretch press, hydroform and metal route R and murdock hot form press. This RCC is also complimented with standard drill press, punch press, tube benders, and work tables with pneumatic air drop.

The age of equipment can fall into two ranges. One being 15 years and older and the other is five to eight years old.

Generally, utilization of equipment is low. This may be due to the nature of workload and readiness to do any skewed shape part in-house during surge period.

PM 0738 drop hammer - "Chambersburg" - very old drop hammer. One of a kind at WR-ALC. Presently, it is located at Building 125. This equipment is mainly used by

MANPSB to form. The breakdown of this equipment will force WR-ALC to procure the part instead of making it in-house. Of course the condition of equipment is poor.

WR-ALC should layout this MANPSB shop with basic key N/C machines and special machines and operate like private job shopper.

2.3 Workforce

RCC MANPSB's workforce fluctuates with workload. The workforce is comprised of sheet metal mechanics, pattern and form makers, two supervisors, unit chief, and a clerk.

The following is a breakdown of manpower within MANPSB:

Skill Code	Skill Level	Quantity	Position Description
46001	WG-11	5	Sheet metal mechanic (Aircraft)
46005	WG-08	24	Sheet metal worker
48107	WG-12	3	Pattern maker
48687	WG-10	3	Form block maker
50359	WG-10	30	Sheet metal mechanic
50889	WG-05	4	Sheet metal mechanic helper
9M075	WG-03	2	Worker trainee

It is to be noted that the workforce noted here was as of 4th quarter 1988.

2.4 Repair Process Technologies

The manufacturing process within MANPSB consists of four or five major operations. Most of the parts will be processed as detailed below:

- Cut to size
- Bend/form to shape
- Clean
- Heat treat
- Test
- Finish
- Inspection and Ship

Material will be one of the following three; aluminum, titanium, or stainless steel.

2.5 Workload Volume and Mix

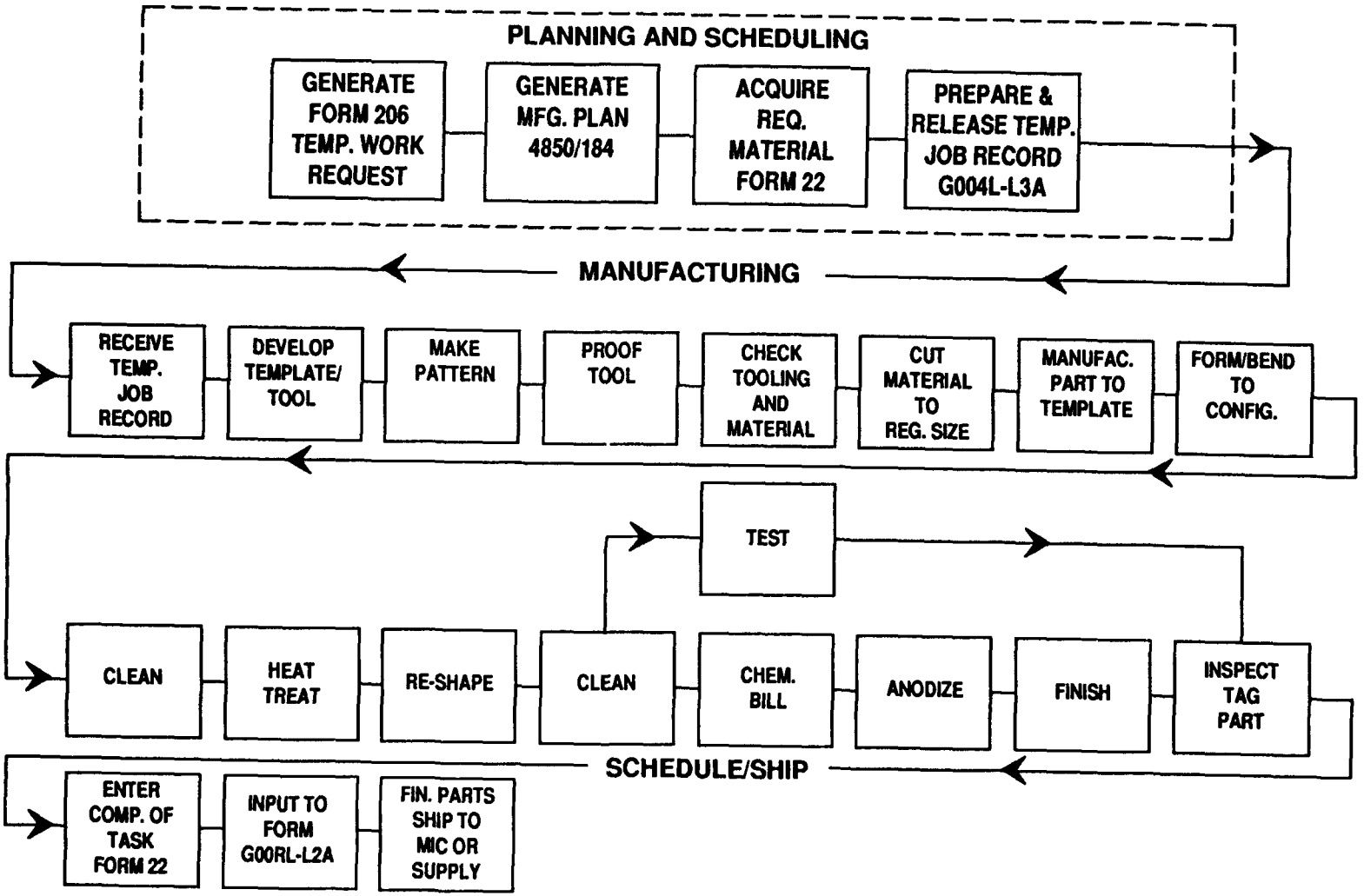
100% of workload is manufacturing parts per temporary request. Volume varies considerable. Historically, the volume of workload was high. Presently workload is on low side.

2.6 Material Handling

Material handling equipment are standard forklift and dollies. This is one of the areas which needs alot of improvement.

2.7 Storage

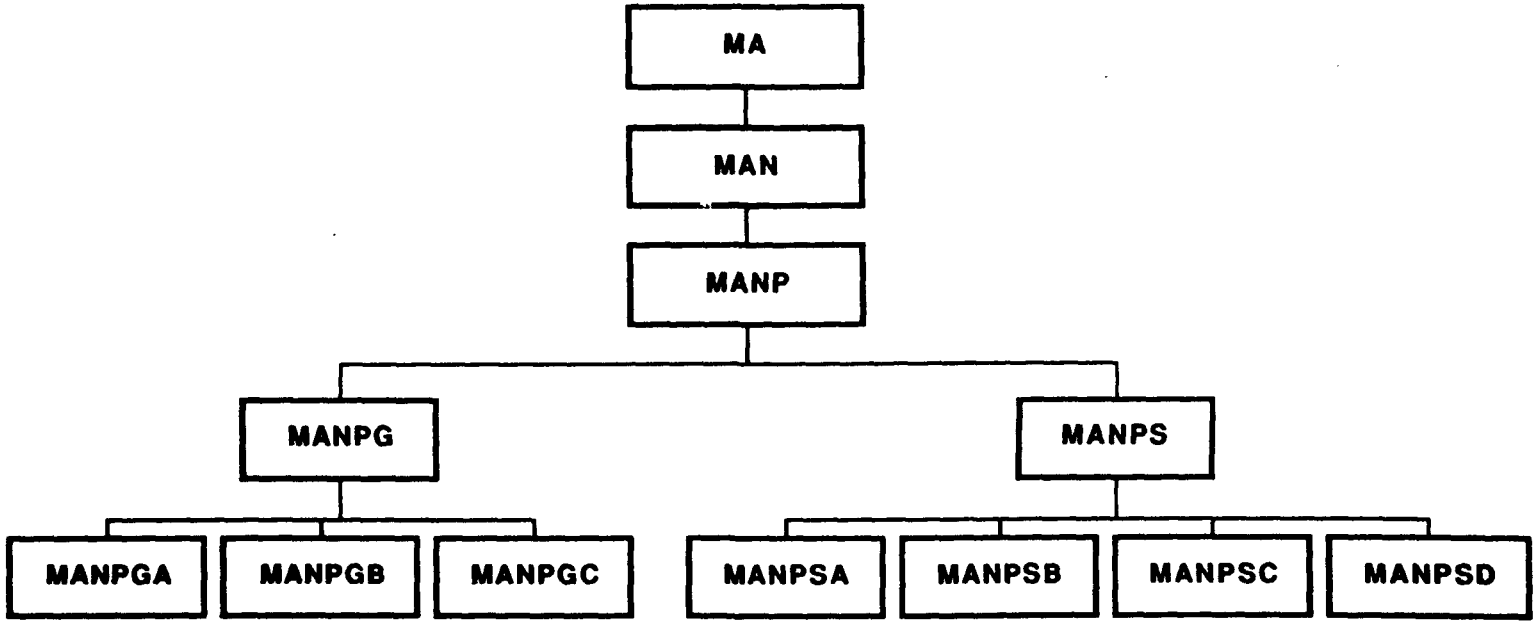
Templates and form blocks are stored in Building 161. Dies are stored next to machine based on their usage. End items are shipped at the completion of task so there is no storage required other than work in progress.



WR-ALC MANPSB PROCESS FLOW CHART

FIGURE

LSC-20238

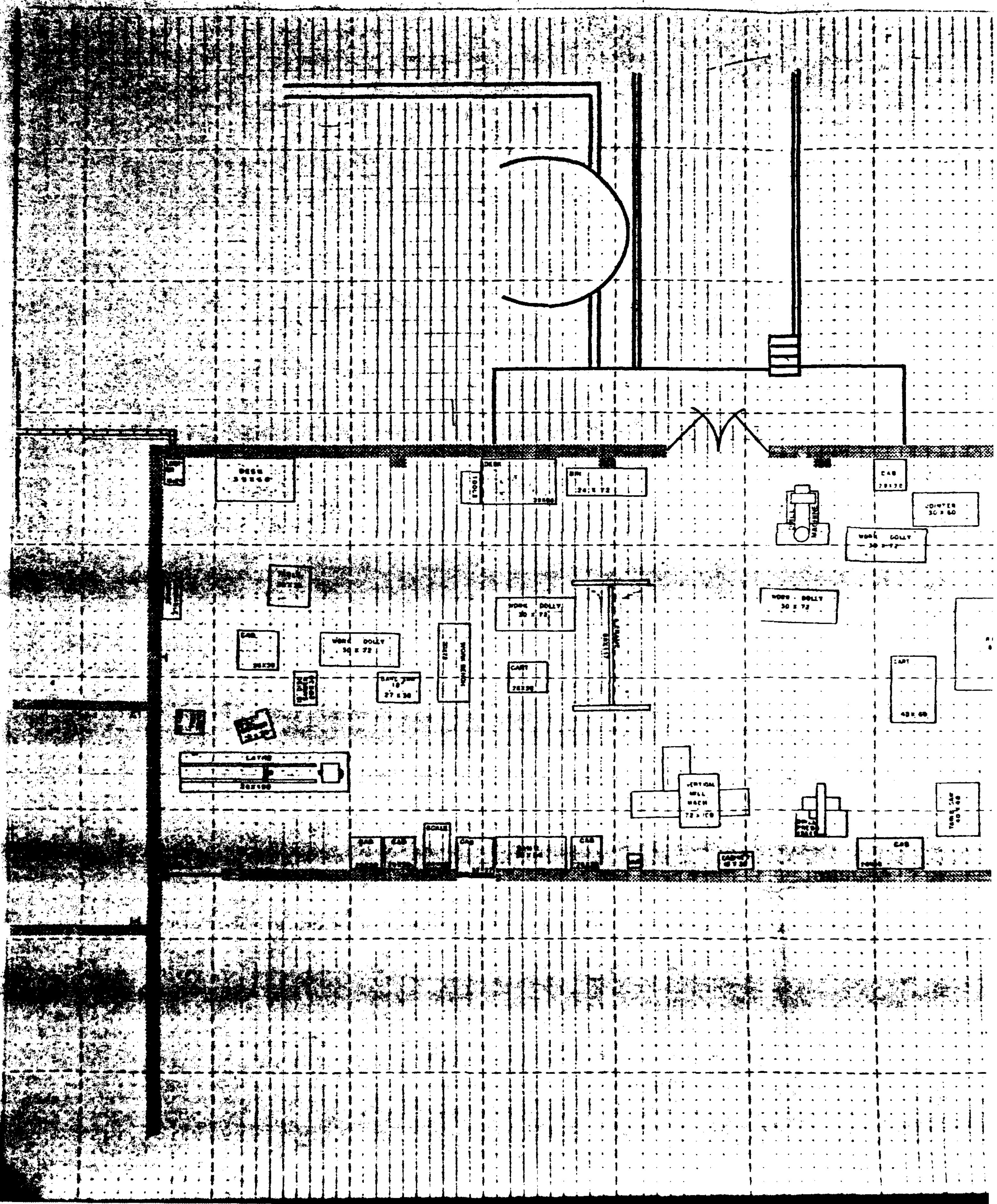


LEGEND:

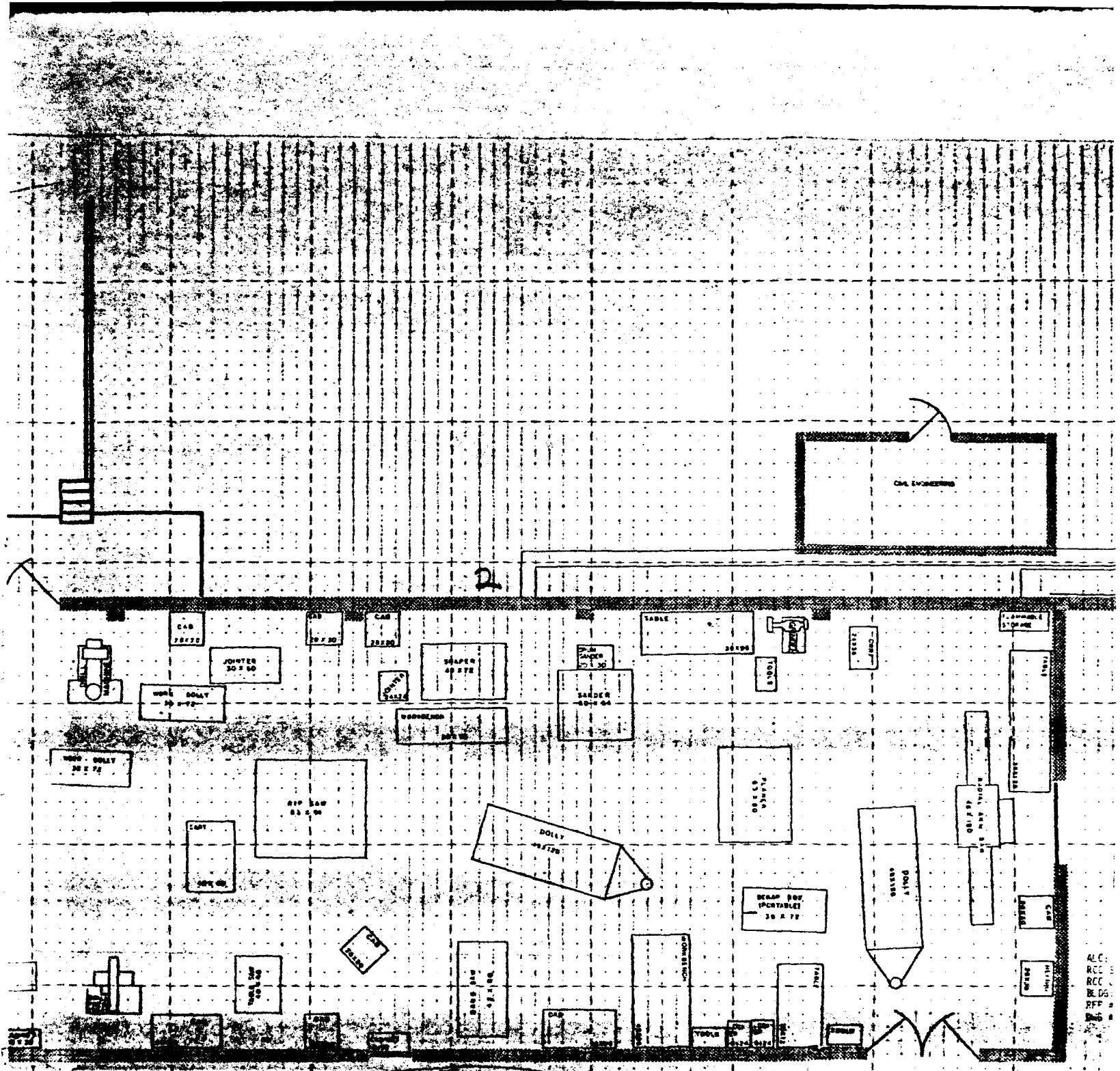
MA = DIR. OF MAINT.
MAN = INDUSTRIAL PRODUCTS DIVISION
MANP = PRODUCTION BRANCH
MANPG = GYRO SECTION
MANPGA = GYRO REPAIR UNIT NO. 1
MANPGB = GYRO REPAIR UNIT NO. 2
MANPGC = GYRO REPAIR UNIT NO. 3
MANPS = SHEET METAL SECTION
MANPSA = ADHESIVE BONDING UNIT
MANPSB = SHEET METAL MANUFACTURING UNIT
MANPSC = SHEET METAL REPAIR UNIT
MANPSD = PLASTIC & MISC. SHEET METAL UNIT

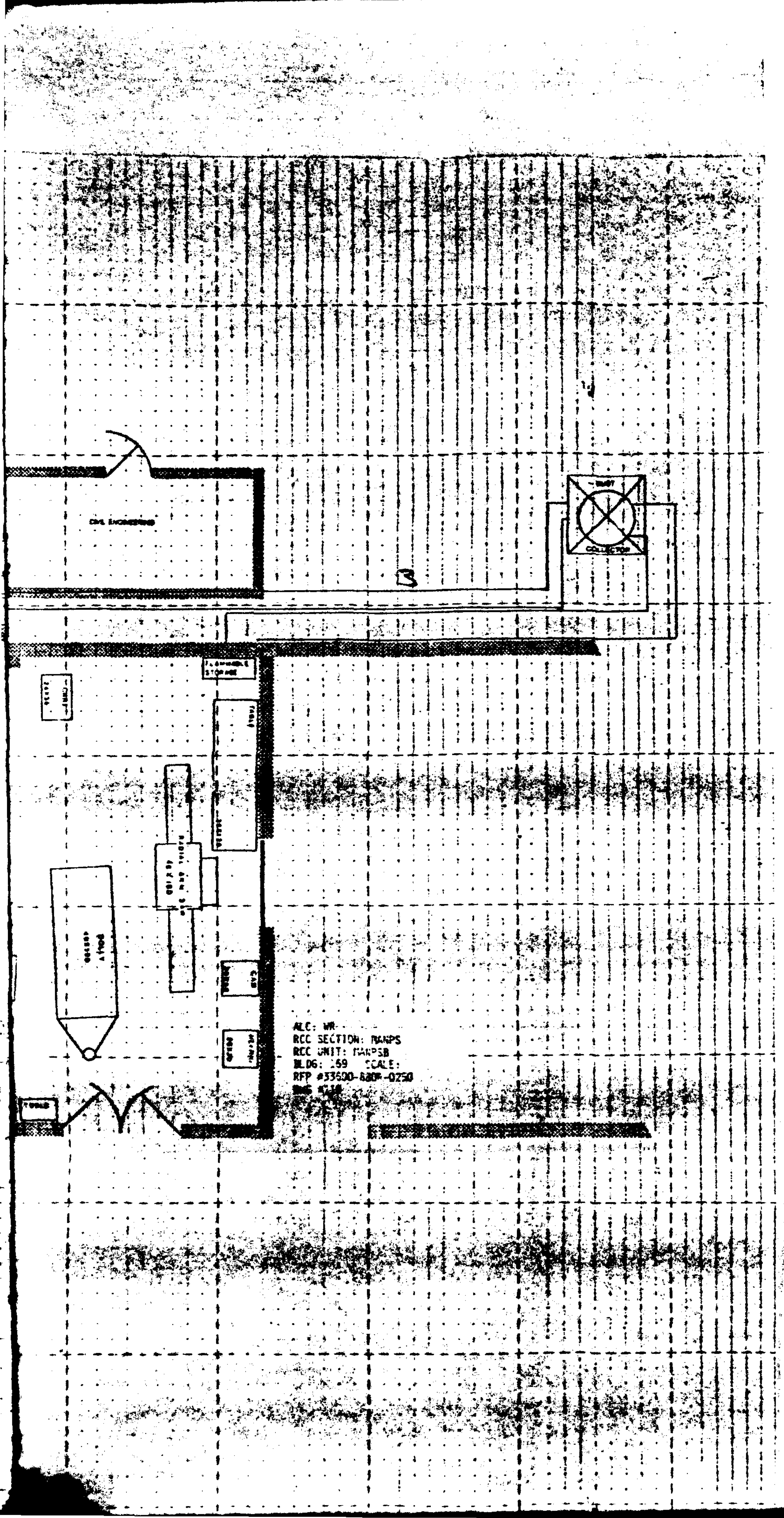
LSC-20282

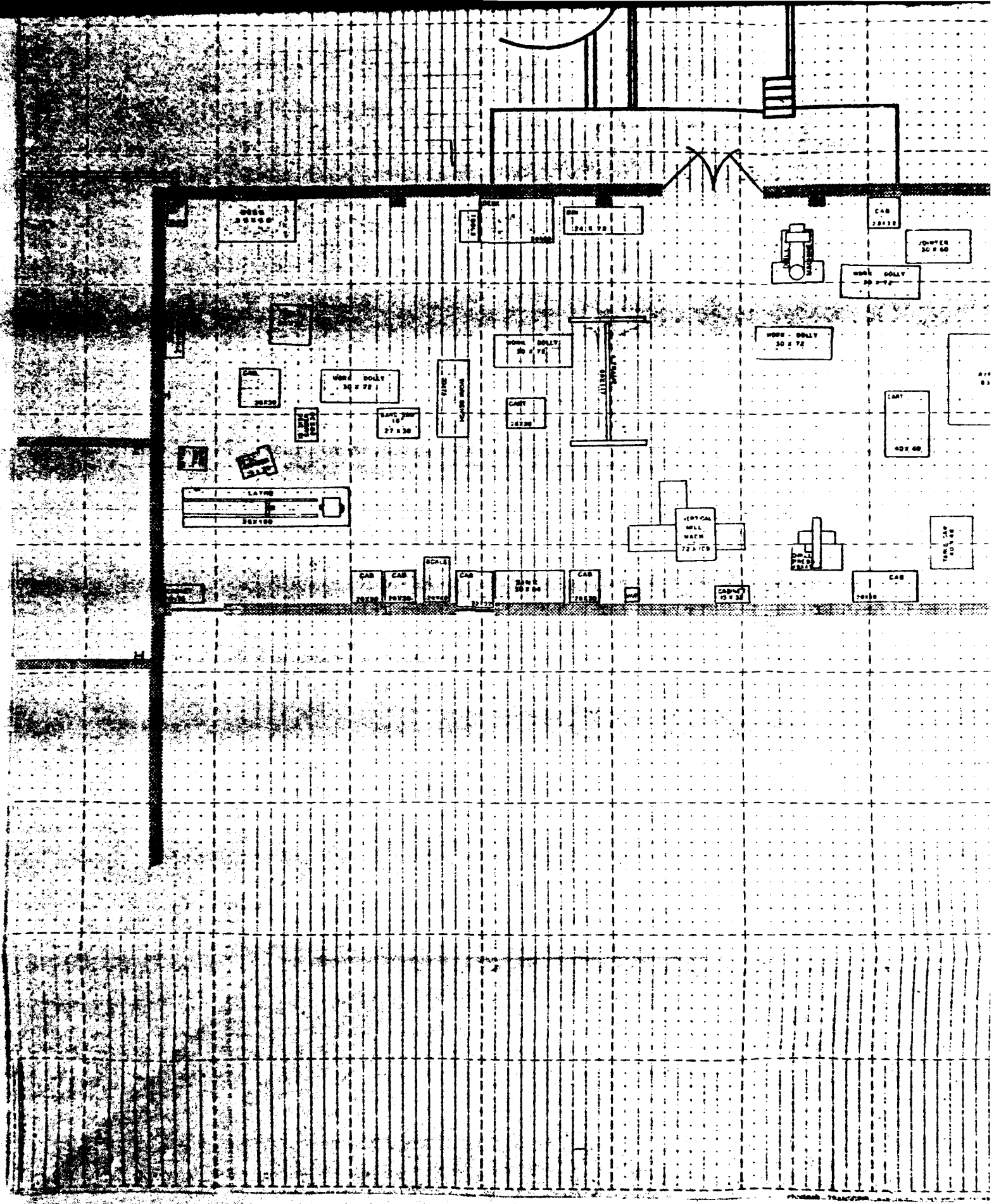
WR-ALC RCC PROCESS CHARACTERIZATION COVERAGE
FIGURE 9.0-1

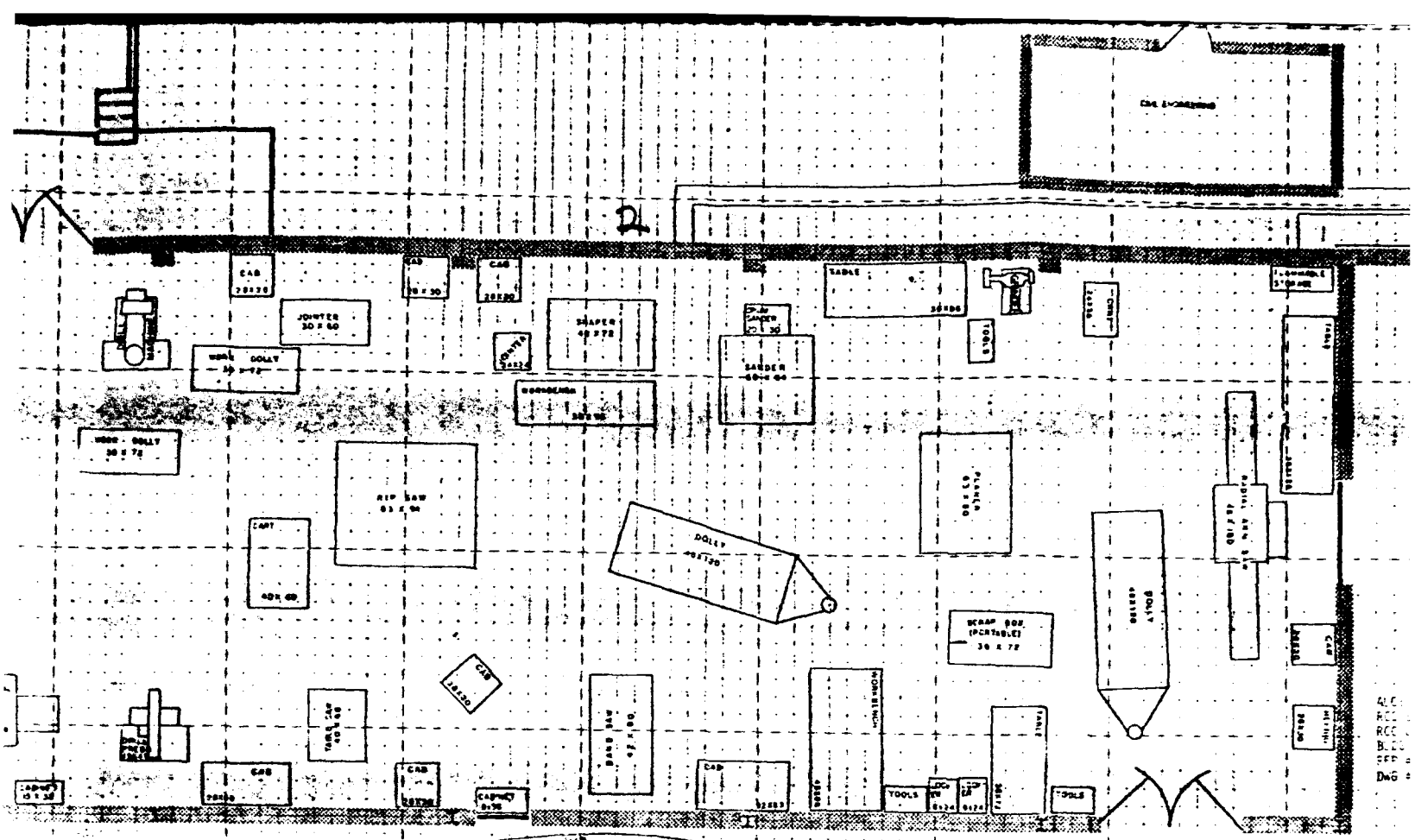


BIN
24 X 72
WORK DOLLY
30 X 72
WORK DOLLY
30 X 72
CART
WORK BENCH
LATHE
SCALE
CAB
CAB
JOINTER
30 X 60
WORK DOLLY
30 X 72
DRILL MACHINE
WORK DOLLY
30 X 72
CART
48 X 60
VERTICAL
MILL
MACH
CAB


CIVIL ENGINEERING
2L
TABLE
SANDER
SHAPER
JOINTER
DOLLY
SCRAP BOX (PORTABLE)
30 X 72
MANPSB
Dwg # 116

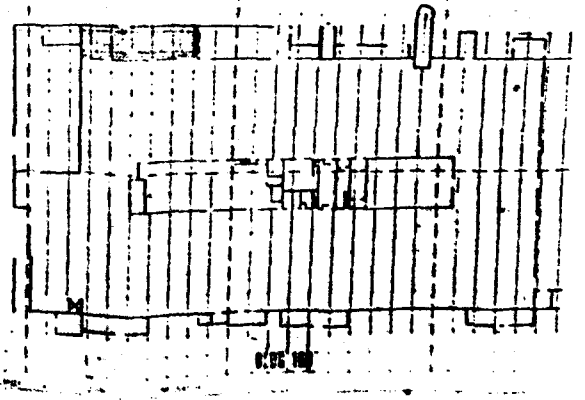

CIVIL ENGINEERING
COLLECTOR
FLAMMABLE STORAGE
ALC: WR
RCC SECTION: MANPS
RCC UNIT: MANPSB
SCALE:
RFP #33600-88R-0250

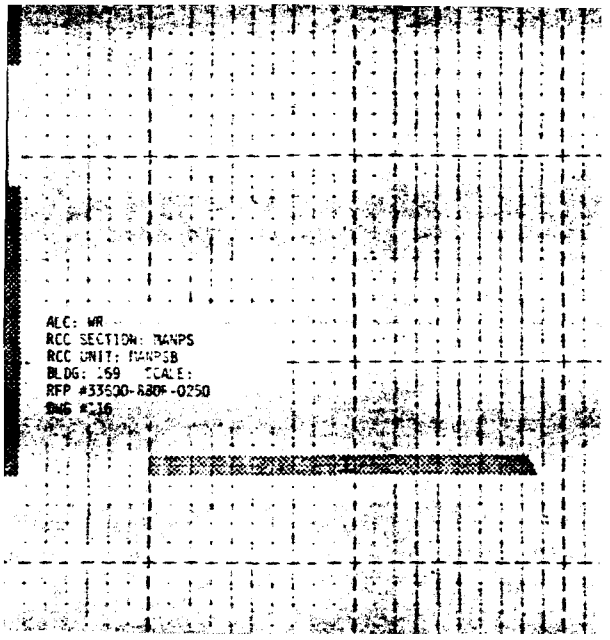

LAYING
VERTICAL MILL MACH
SCALE

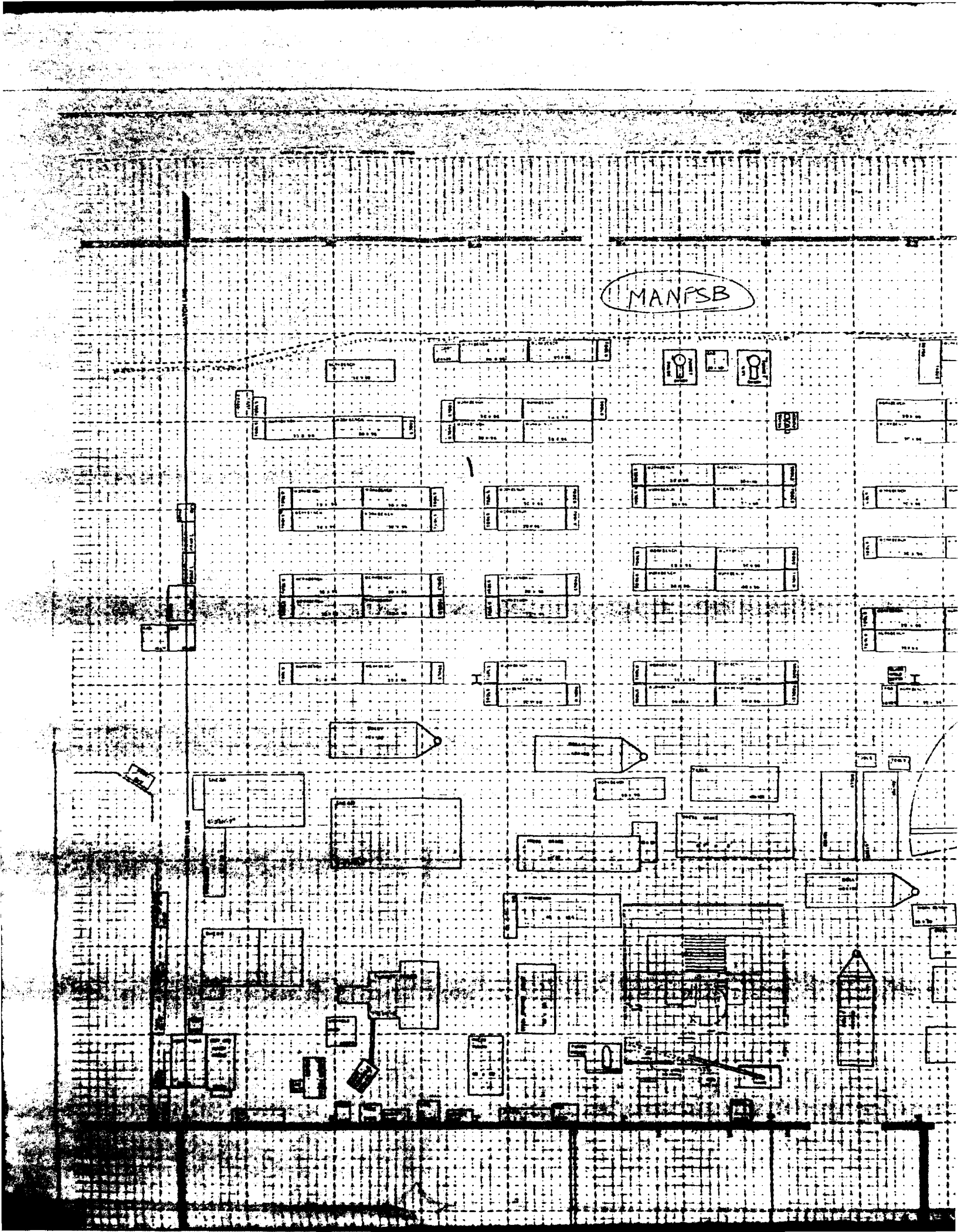


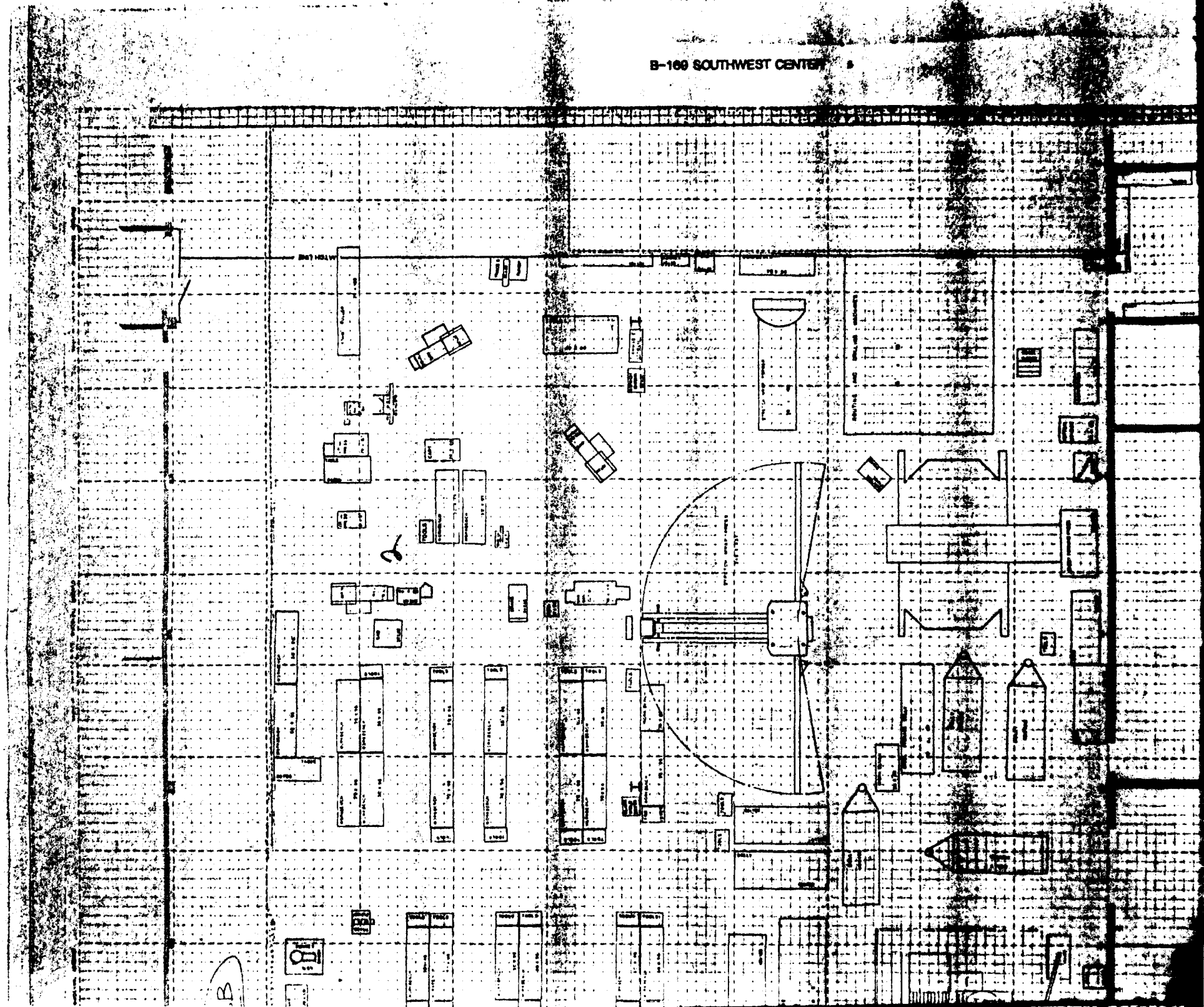
MANPSB

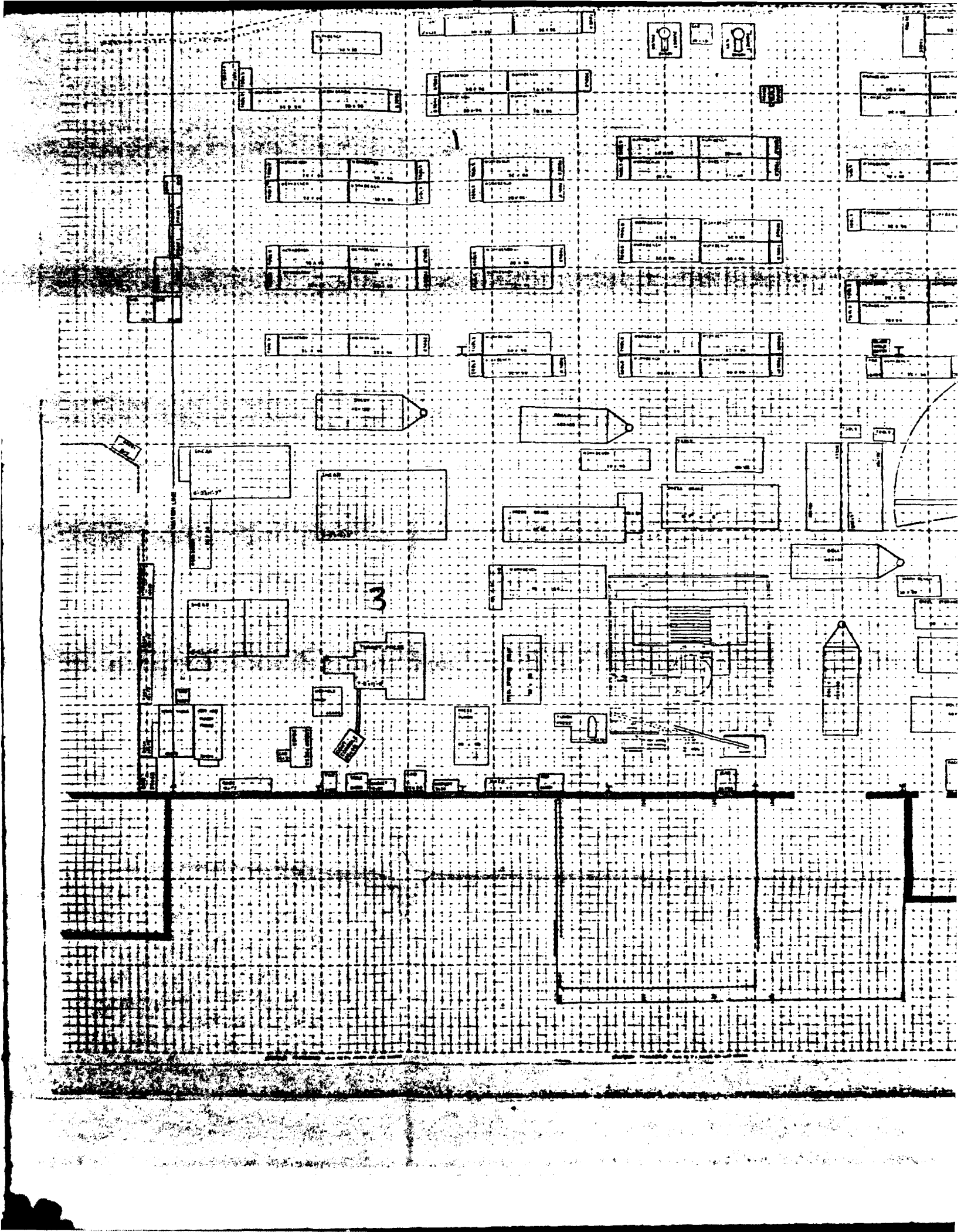
Dwg #11c

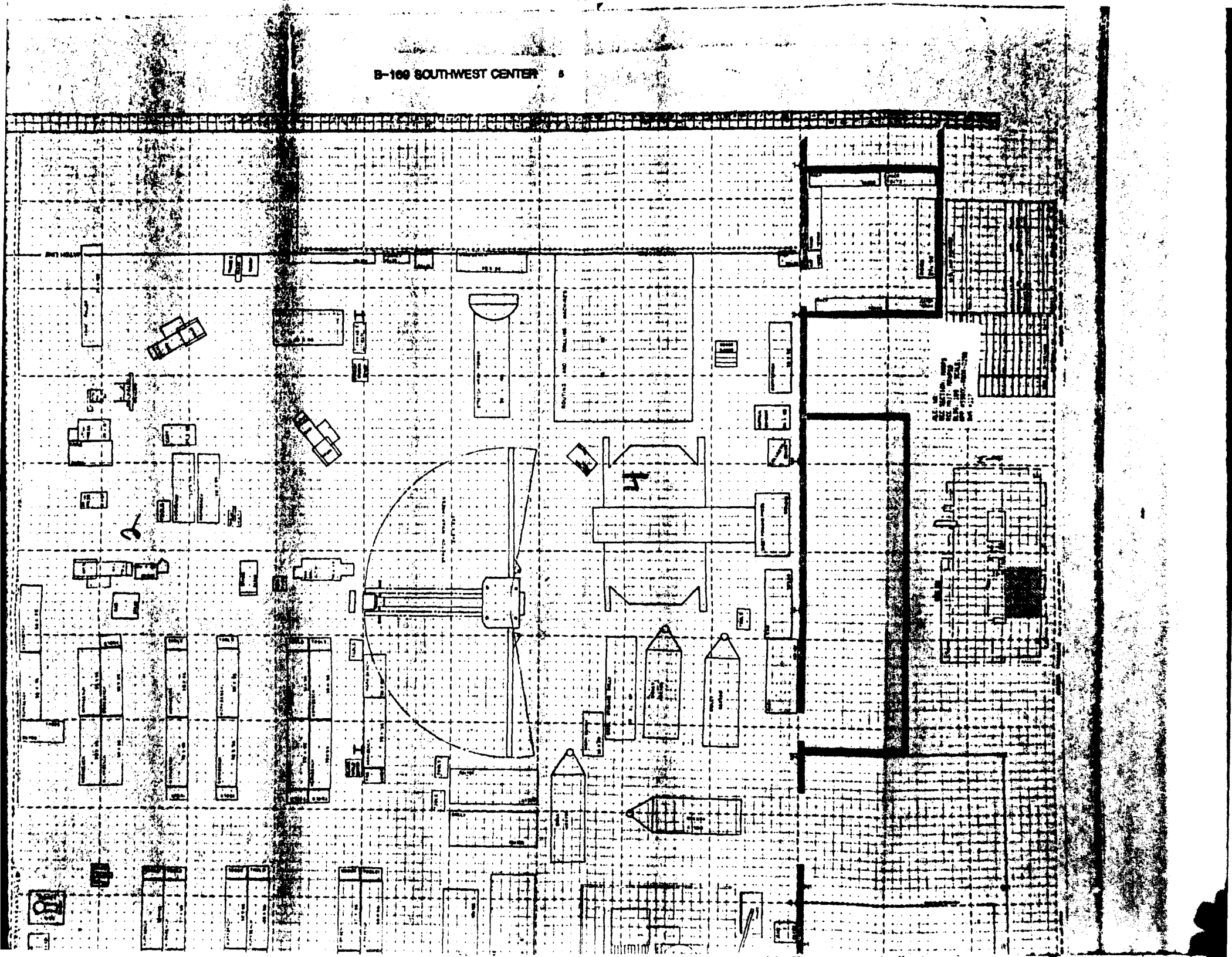


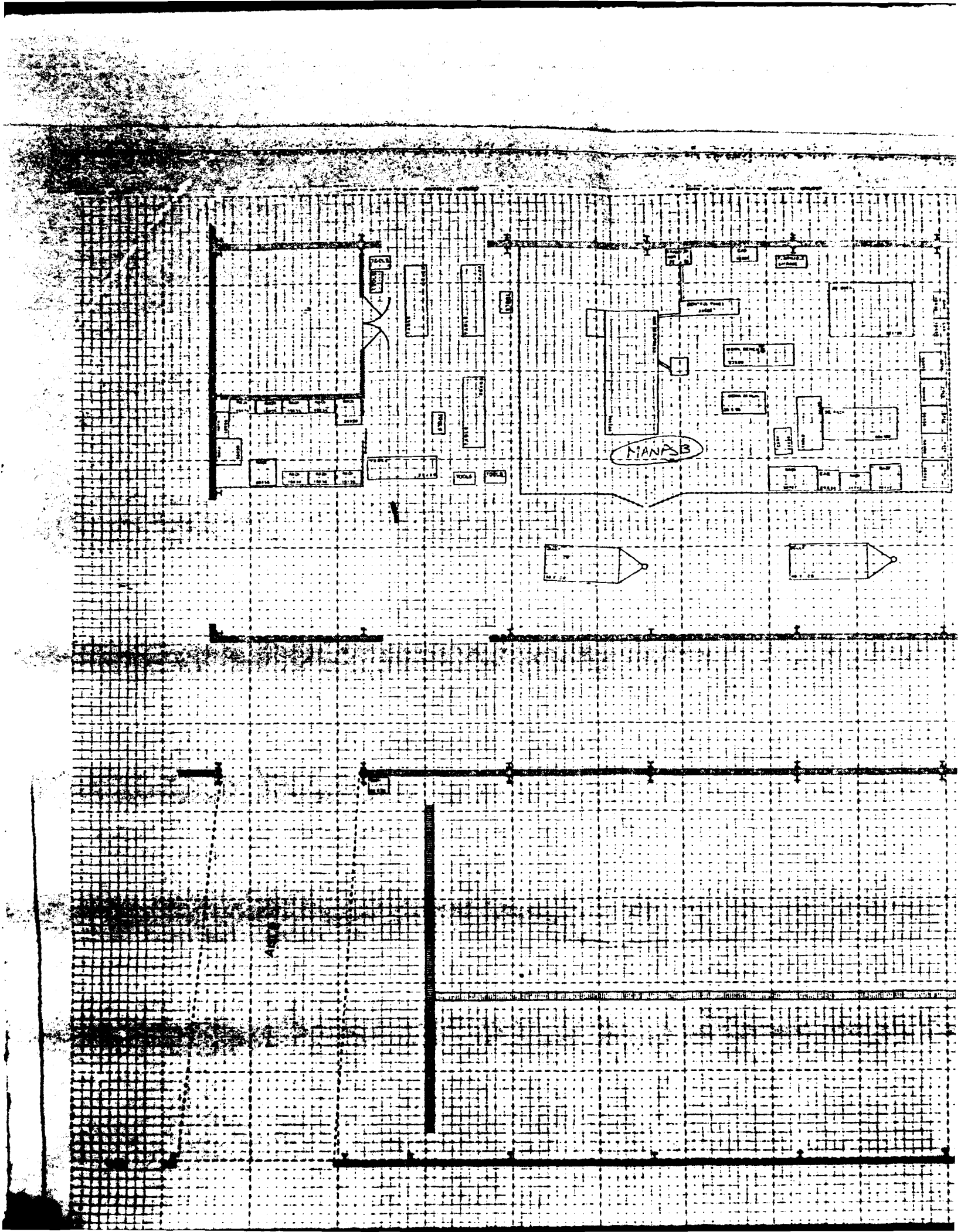

ALC: WR
RCC SECTION: WANPS
RCC UNIT: WANPSB
BLDG: 169 SCALE:
RFP #33600-88PR-0250
DWG #:16

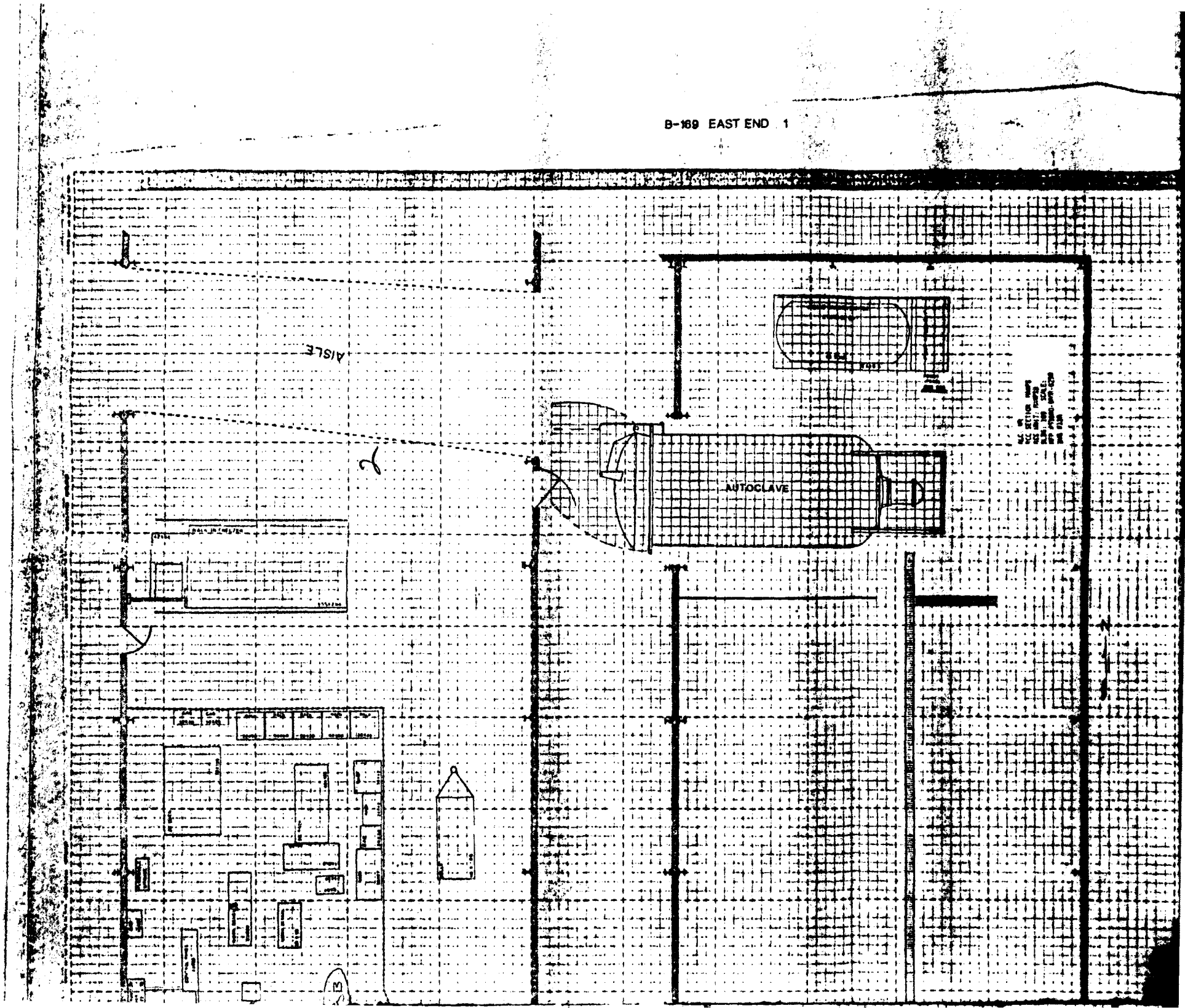

MANPSB

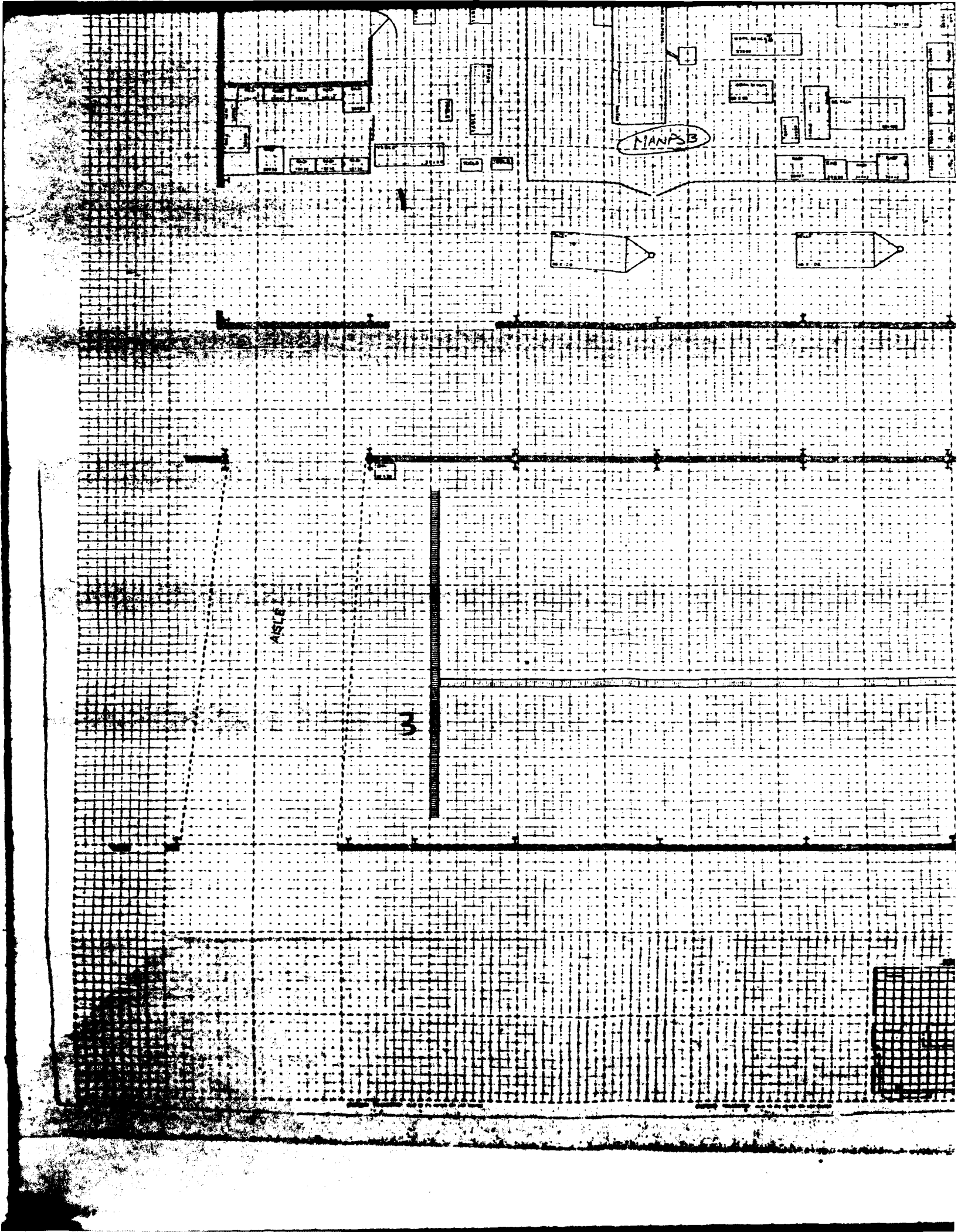




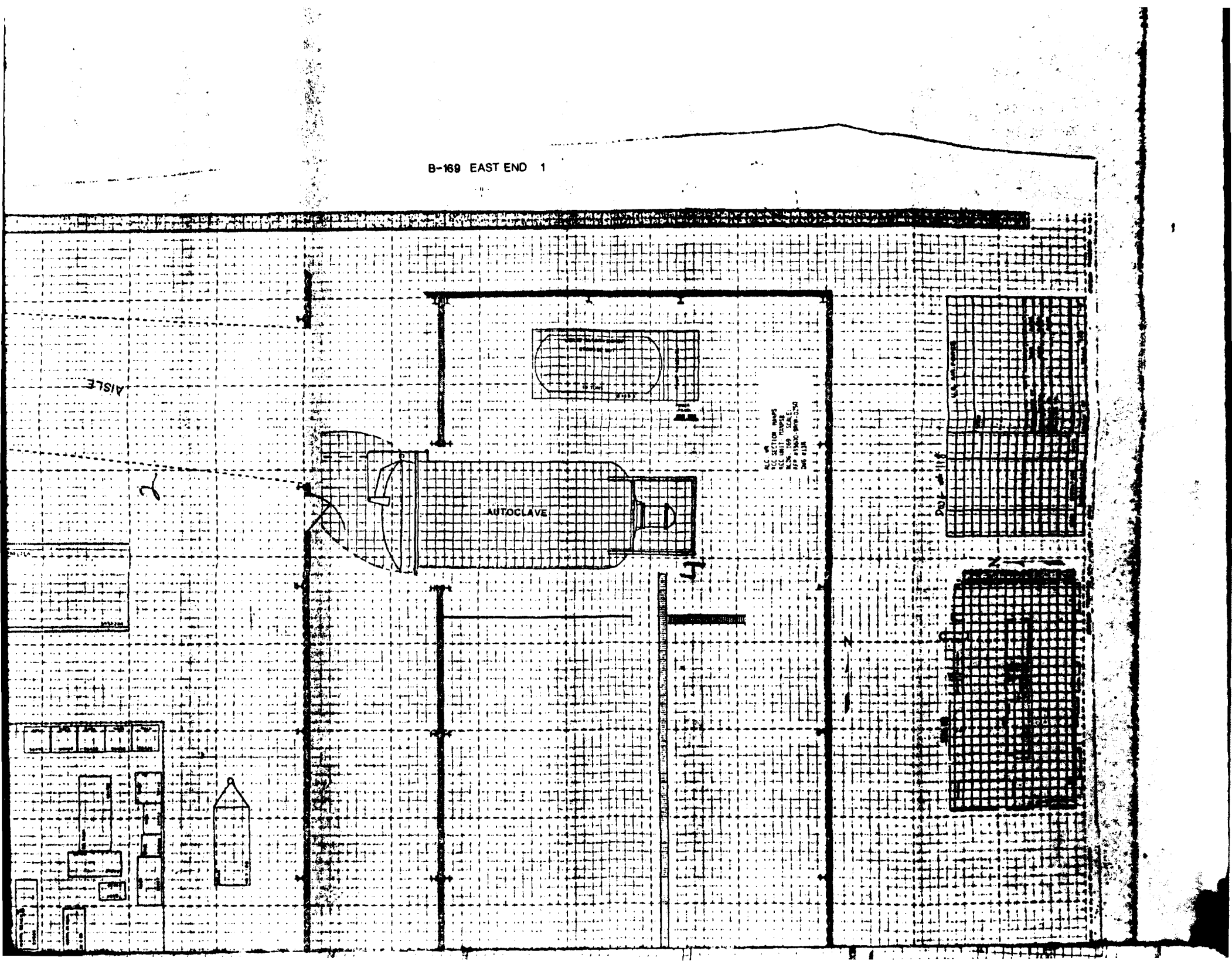


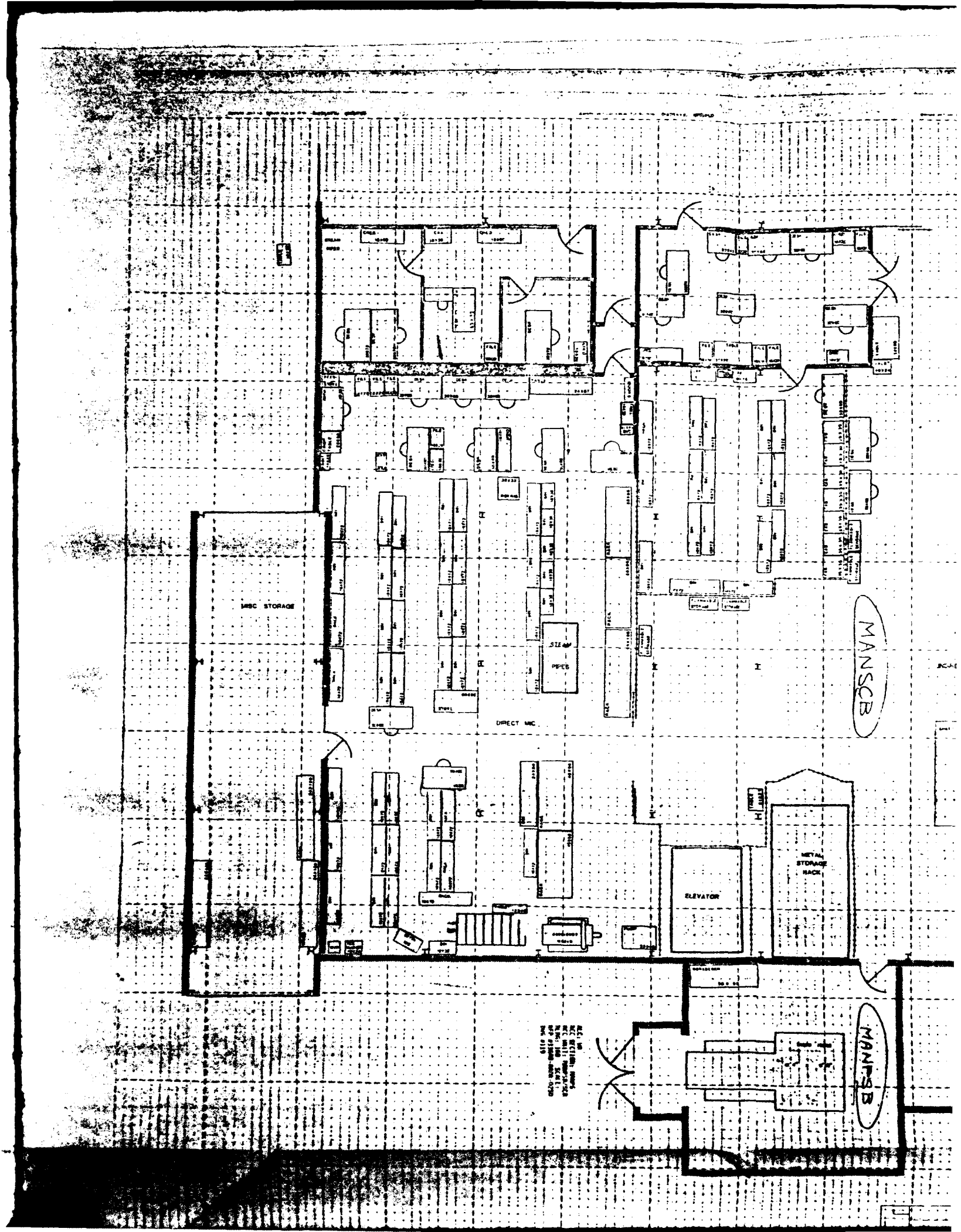

MANPS13

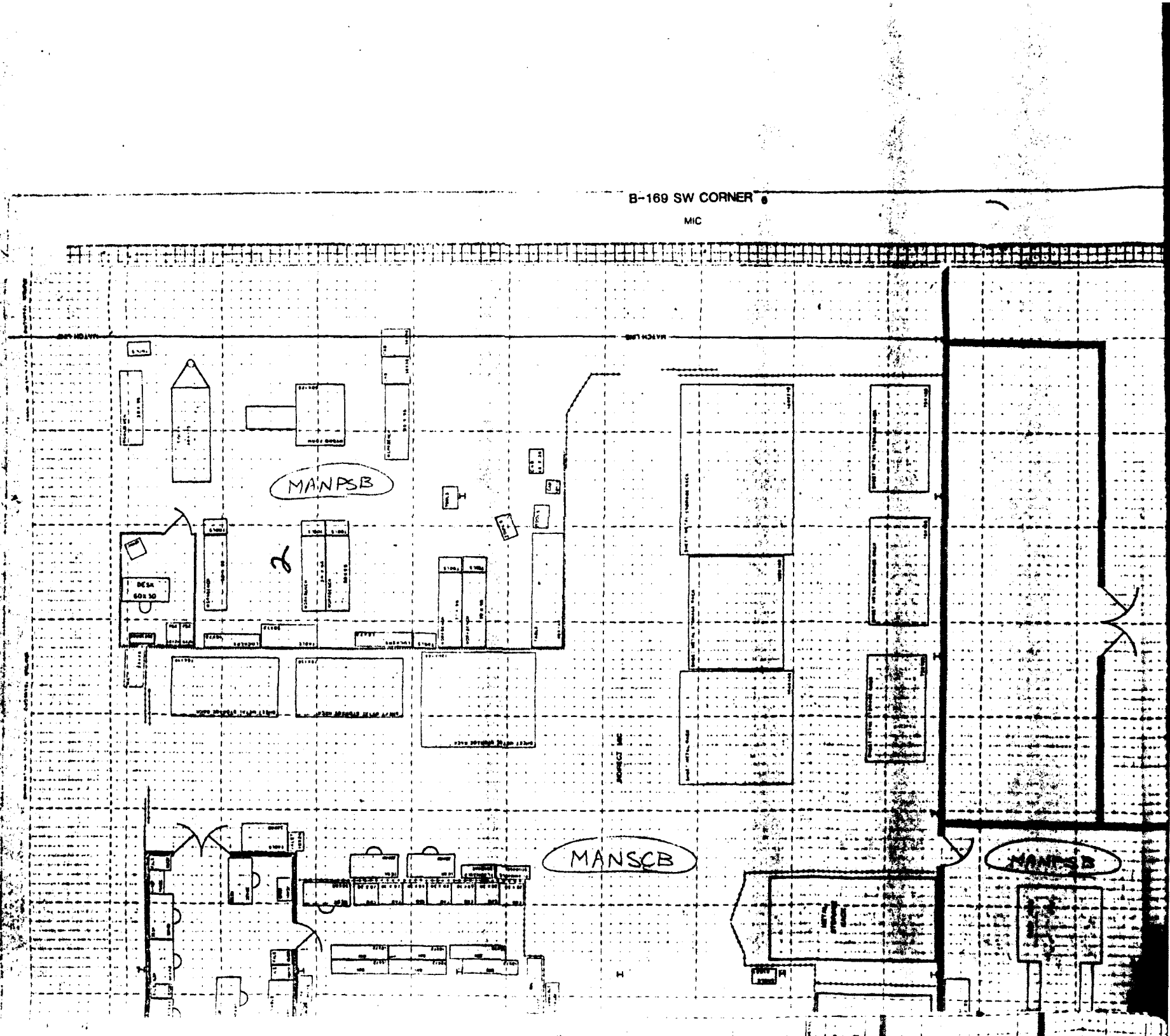

AUTOCLAVE

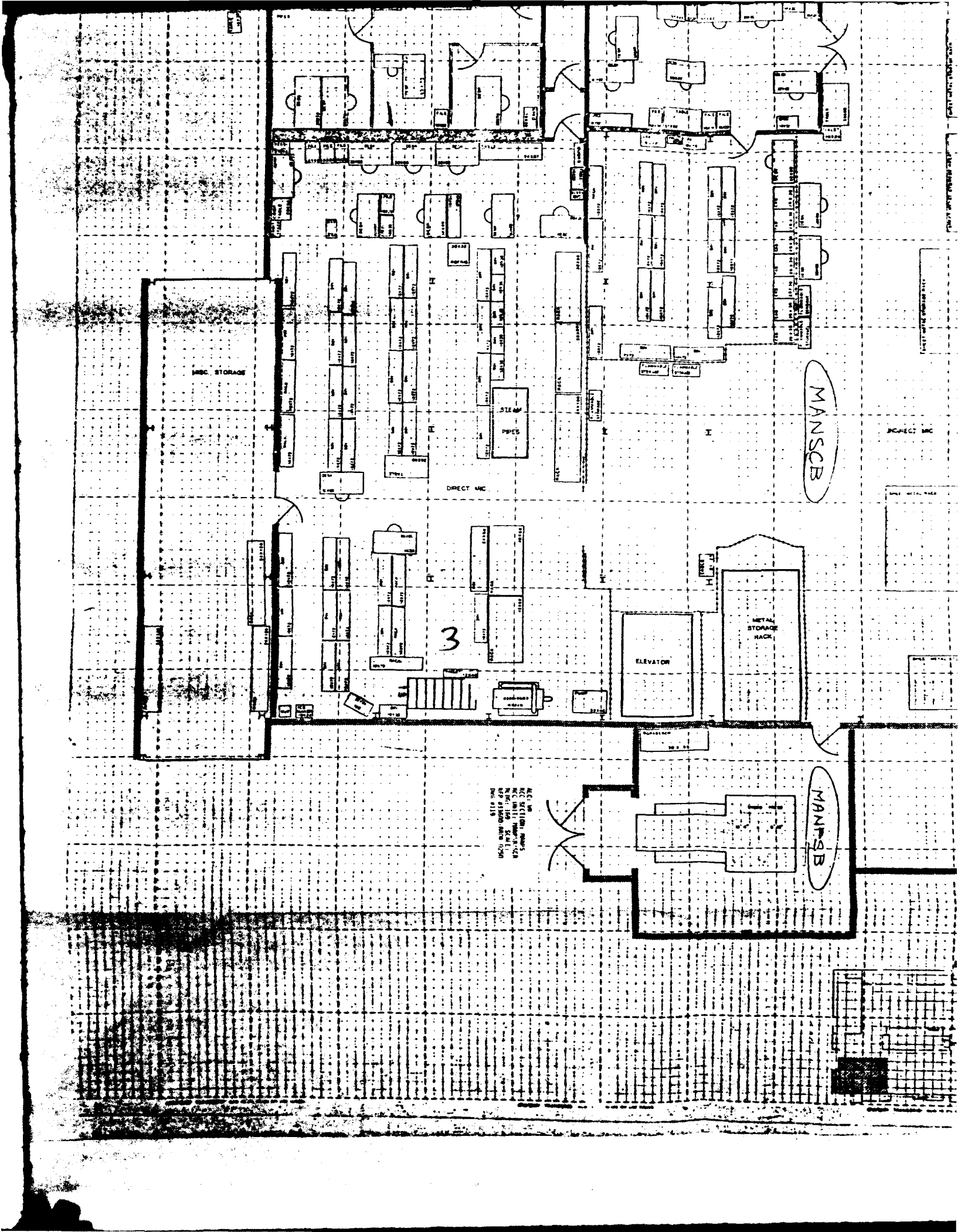

MANAS B
AISLE
3

B-169 EAST END 1



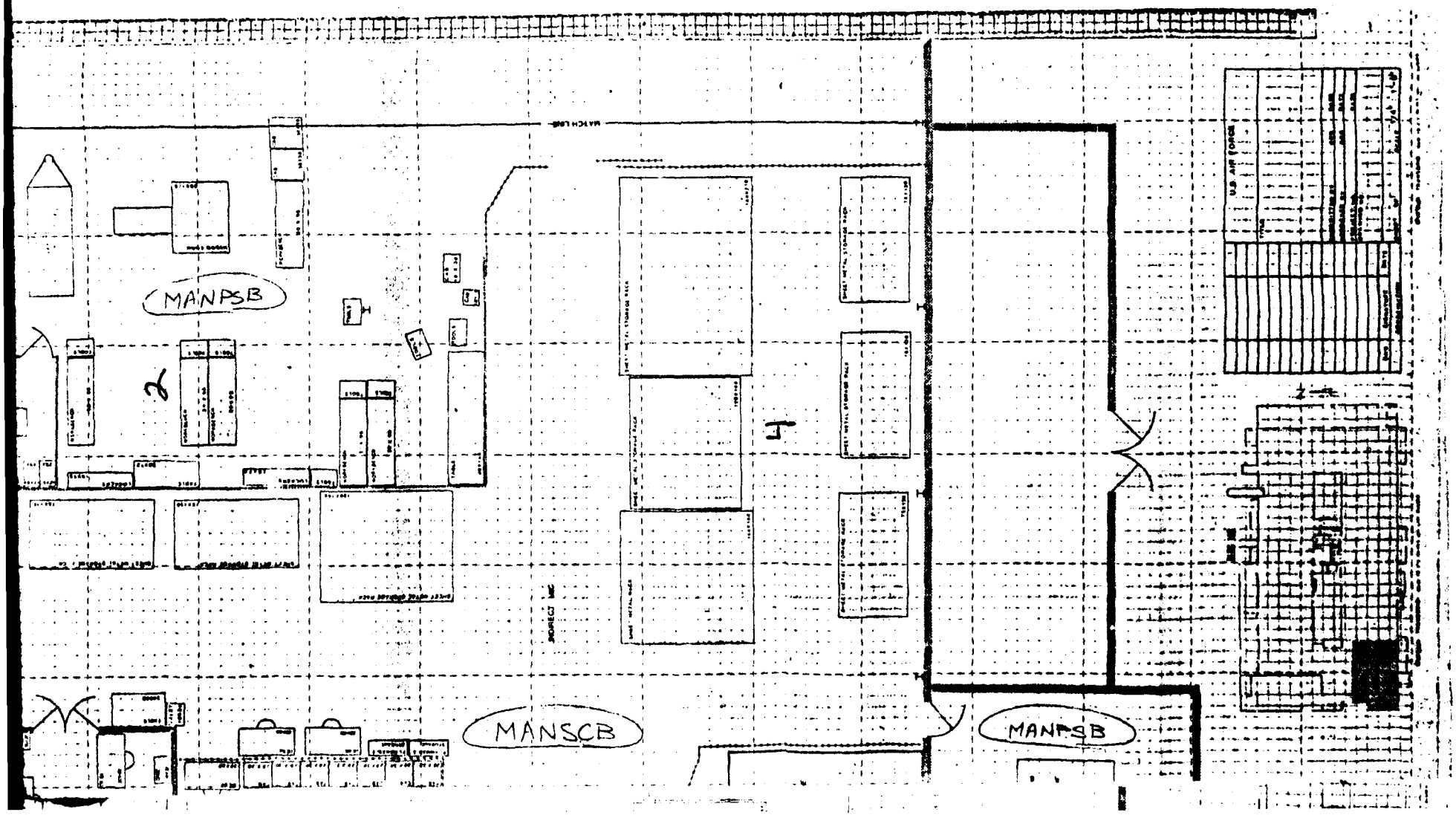

MISC STORAGE
STEAM PIPES
DIRECT MIC.
MANSCB
ELEVATOR
METAL STORAGE RACK
MANSCB


B-169 SW CORNER
MIC
MAINPSB
MANSCB


MISC. STORAGE
STEAM PIPES
DIRECT MIC
MANSCB
ELEVATOR
METAL STORAGE RACK
3
MANPSB

B-169 SW CORNER 6

MIC



3.0 80/20 ANALYSIS OF RCC

SELECTION OF WORKLOAD FOR RCC MANPSB

TO: Mr. Jim Gillis

FROM: Bob Bashyam
11-30-88

- RCC MANPSB is a manufacturing unit.
- The work performed were per temporary work request. The quantity and the kind of parts produced vary significantly.
- Mr. Brian McAnally, Mr. Emory Langston, supervisors of RCC MANPSB, and myself discussed and selected the following family of parts for our process characterization study. These parts fit in the cadre of: (1) Everyday routine process, (2) Utilization of major equipment and tool.

	PART NUMBER	NOUN
1.	342326-7R,-9R & 12R	Skin Paddle
2.	3P21708-103 & 104	Angle
3.	3P22562-263,-265 & 281	Pan Angles
4.	68A350748-2005	F-15 Canopy Frame/Stiffener
5.	3P21006-101	Nose Ring/Frame Assy.
6.	68A327168-2025 & 2026 68A327138-2041,-2043 & 2045	F-15 Stiffener

It is our assumption that these part numbers will meet/represent our 20/80 approach/criteria.

cc: Mr. Jerry Nuell

```
**    ALC - WR     RCC - MANPSB     MODEL WORKLOAD FILE      6/30/1989
M0218K             M0218K     0  7 100 110 110 100                .00     2.60  0A
F-15               .0         .0        0      .0000      .0000        0   .051     B
M0219K             M0219K     0  7 100 110 110 100                .00     3.70  0A
F-15               .0         .0        0      .0000      .0000        0   .073     B
M0220K             M0220K     0  7 100 110 110 100                .00     2.10  0A
F-15               .0         .0        0      .0000      .0000        0   .040     B
M0221K             M0221K     0  7 100 110 110 100                .00     5.10  0A
F-15               .0         .0        0      .0000      .0000        0   .101     B
M0229K             M0229K     0  7 100 110 110 100                .00     3.60  0A
F-15               .0         .0        0      .0000      .0000        0   .071     B
M1495K             M1495K     0  7  65  65  63  63                .00     1.30  0A
C-141              .0         .0        0      .0000      .0000        0   .016     B
M1864K             M1864K     0  7 700 780 726 736                .00     1.00  0A
C-141              .0         .0        0      .0000      .0000        0   .140     B
M1866K             M1866K     0  7 700 780 726 736                .00      .70  0A
C-141              .0         .0        0      .0000      .0000        0   .098     B
M3651K             M3651K     0  7 200 300 291 290                .00     1.70  0A
C-141              .0         .0        0      .0000      .0000        0   .086     B
M3685K             M3685K     0  7 200 300 291 290                .00      .90  0A
C-141              .0         .0        0      .0000      .0000        0   .045     B
M4764K             M4764K     0  7  15  15  14  14                .00     1.20  0A
F-15               .0         .0        0      .0000      .0000        0   .003     B
M5243K             M5243K     0  7 200 300 303 268                .00     1.40  0A
C-130              .0         .0        0      .0000      .0000        0   .070     B
M5351K             M5351K     0  7 200 300 291 290                .00      .80  0A
C-141              .0         .0        0      .0000      .0000        0   .039     B
M5743K             M5743K     0  7 200 300 303 268                .00     1.70  0A
C-130              .0         .0        0      .0000      .0000        0   .086     B
M9929K             M9929K     0  7 200 300 303 268                .00     1.60  0A
C-130              .0         .0        0      .0000      .0000        0   .082     B
```

CONTROL NUMBERS BY RCC

RCC	C/N		NOUN	ORG HOURS	
MNPSA	51454A	51455A	PETAL DOOR	19105	
	01900A		BRAKEAER	9171	
(6) (4+2)	51352A	51353A	DOOR	8342	
	51418A	51419A	LEADING	6480	43098
11/23 ADD	05502A	05503A	AILERON		
	51334A		HORZ. STABILIZER		
MNPSC	06691A	06692A	COWLING R&L	97484	
	50164A		SCOUP	4032	
	51402A		DR THRUST	3110	
5	50266A		ELEVATOR	2770	
	50242A	50244A	FLAP	3504	110900
	(50454A)				
MNPSD	03172A		CANOPY	49719	
	51344A		NOZZEL	34626	
	09193A	F15	RADOME	21107	
(7) (6+H)	41059A	C130	RADOME ASSY	9310	
	03427A		CANOPY	6900	
	40208A	C141	RADOME	5495	127157
11/23 ADD	51420A		LEADING EDGE		281155

SHEET METAL SHOP

BB 10/14/88

RCC	ORG HRS	80%	NO. OF HRS SELECTED FOR STUDY
MANPSA	53450	42760	43098 (81%)
MANPSC	144209	115367	110900 (77%)
MANPSD	156501	125200	127157 (81%)

CALCULATED FROM DOC. GOPC AS OF 22SEP88 FOR RCC MANPS AND ALLOCATED C/N'S FOR UNITS A, C & D.

Bob 12/13

3.0 80/20 ANALYSIS OF RCC

METHODOLOGY USED IN ATTAINING
WORKLOAD FOR RCC MANPSB (MFG)

TO: Jim Gillis

FROM: Bob Bashyam
1-24-89

- Collected all the workload record (AFLC Form 22) from scheduling department for 4th Quarter of 1988 - Mr. A. Holder - (See Exhibit A).

- Identified and listed part numbers, quantity, standard hours, etc. information. (See Exhibit B).

- Grouped the part numbers which belong to the same category. EG: Angle, bracket, etc. (See Exhibit C).

- With the help of RCC Supervisor and/or representative, the group of part numbers were identified for family.

- From the above list workload information was derived.

3.0 80/20 ANALYSIS OF NSN

WORKLOAD RECORD

1. NSN (MASTER) / INPUT NSN	2. PCI	3. STD HRS	4. FLOW DAYS	5. DEL DATE	6. C.N-JO-JON	
9320012457119 FX	A	15.18		881230	M6985K	91A
	8. INTERCHANGEABLE NSN			9. DPC	10. NCLR	
				T	PAD	
11. PART NO	12. INTERCHANGEABLE NSN			13. DOCUMENT		14. PROD SEC SD
68R093597-2023				244	971	MIPIS19N

15. NEGOTIATED CUSTOMER ORDER QUANTITIES (COQ) ACTUAL PRODUCTION

1ST QTR		2ND QTR		3RD QTR		4TH QTR	
NEG COQ	PRODUCTION	NEG COQ	PRODUCTION	NEG COQ	PRODUCTION	NEG COQ	PRODUCTION
INPUT		INPUT		INPUT		INPUT	
OUTPUT		OUTPUT		OUTPUT		OUTPUT	

ASSETS							PRODUCTION			
JULIAN DATE A	DOCUMENT NO B	QNTY ORD C	QNTY RCV/ CUM TOT D	AWM E	AWP F	OWO G	SER H	REP I	COND J	REMARKS K
	On Hand 27 Dec 88	569			569					
9003	[illegible]				0		569 569			

EXHIBIT A

COMPLETED

DATE DEC 27 1988

ASSETS AND PRODUCTION CONTINUED ON REVERSE

AFLC FORM NOV 80 22 PREVIOUS EDITION WILL BE USED.

PAGE 4 OF

WR-ALC

RCC: MANPSB

WORK - LOAD

BB 1/11/89

PART NUMBER	C/N	NOUN	QTY	SID. HRS	COMP. DATE	REMARKS
3821567-113	M0157K	Gusset	1	4.50	30ct 88	
68A327160-2077	M0156K	Intercostal	70	66.08	30ct.88	
68A 327205-2077	M02424	Lib	70	66.08	70ct.88	
68A-327160-2078	M02744	Intercostal	70	66.08	30ct.88	
8836876	M0683K	Support	34	37.91	30ct 88	
4082123-5	M0885K	Plate	30	14.50	30ct.88	
3E 62057-101	M1117K	Bumper	2	1.75	70ct.88	
68A870775-2003	M1214K	Restrictor	1	7.75	50ct.88	

EXHIBIT-H

WR-ALC

RCC: MANPSB

WORK LOAD

EXHIBIT C

3.0 80/20 ANALYSIS OF RCC

ART BRACKET -2

Art Number	Qty	STD HRS
5428584-01	4	6.15
5428585-01	4	9.25
5428586-01	4	6.75
68A 810012-2021	1	22.00
3F 21140-102	1	6.50
3245231-55	10	10.50
3W 15054-115	30	60.24
3P 21602-233	10	12.25
FA 58122-1002	30	14.01
3G 11736-104	1	8.00
3G 11735-105	1	5.50
3A 50064-101	10	68.50
3C 02051-101, 102	1, 1	4.25, 7.50
3F-50000-121	100	103.30
3C 02074-103	2	9.50
3G-11735-107	1	10.30
3G 60203-105	6	7.75
FA 58035-2007, 2008, 2014	20, 20, 20	14.25, 21.50, 14.25
3P 30013-101	4	7.90
FR09305 3-2005	30	5.25
326641-1	2344	452.21
FA 11221 2-2001	1	8.00
537847-01	12, 1	9.00, 2.75
3A 30202-102	12	28.20
3P A1554-102	10	8.75
FR 32004 5-1002	4	17.75

3.0 80/20 ANALYSIS OF RCC

WR-ALC MANPSB
WORKLOAD

DATE: 1/24/89

	PART NUMBER REP. FAMILY	QTY. REPRESENTING THE FAMILY 4th QUARTER 1988		
		QTY.		EARNED HOURS
1.	342326-7R-9R-12R SKIN RADOME	3212		6314
2.	3P21708-103,104 ANGLE	5883		7018.2
3.	3P22562-263,-265,-281 PAN PANELS	3488		8642.5
4.	68A350748-2005 F-15 MAIN FRAME STAT	58		204.3
5.	3P21006-101 NOSE SKIN FORMING ASSY	12		140
6.	68A327168-2025 & 2026 68A327138-2041 2043 2045 F-15 STAPE	2028		1027
	TOTAL	14,681	92%	23,346

Total Standard Hours: 25,297.60
(4th Quarter 1988)

SELECTION OF WORKLOAD FOR RCC MANPSB

TO: MR. JIM GILLIS FROM: BOB BASHYAM

. RCC MANPSB IS A MANUFACTURING UNIT.

. THE WORK PERFORMED WERE PER TEMPORARY WORK REQUEST. THE QUANTITY AND THE KIND OF PARTS PRODUCED VARY SIGNIFICANTLY.

. MR. BRIAN MCANALLY, MR EMORY LANGSTON SUPERVISORS OF RCC MANPSB AND MYSELF DISCUSSED AND SELECTED THE FOLLOWING FAMILY OF PARTS FOR OUR PROCESS CHARACTERIZATIO STUDY. THESE PARTS FIT IN THE CADRE OF (1) EVERYDAY ROUTINE PROCESS (2) UTILIZATION OF MAJOR EQUIPMENT & TOOL

PART NUMBER	NOUN
1. 342326-7R, -9R & 12R	SKIN -- PADDLE
2. 3P21708-103 & 104	ANGLE
3. 3P22562 -263, 265 & 281	PAN - ANGLES
4. 68A350748-2005	F-15 CANOPY FRAME/STIFFENER
5. 3P21006-101	NOSE RING / FRAME ASSY.
6. 68A327168-2025 & 2026	F-15 STIFFENER
68A327138-2041, 2043 & 2045	

IT IS OUR ASSUMPTION THAT THESE PART NUMBERS WILL MEET / REPRESENT, OUR 20/80 APPROACH / CRITERIA.

CC. MR. JERRY NUELL

R Bashyam

11/30/88

4.0 DATA COLLECTION*

Eight different profile data sheets were made available to the working group for collection of data. The eight different profile sheets are:

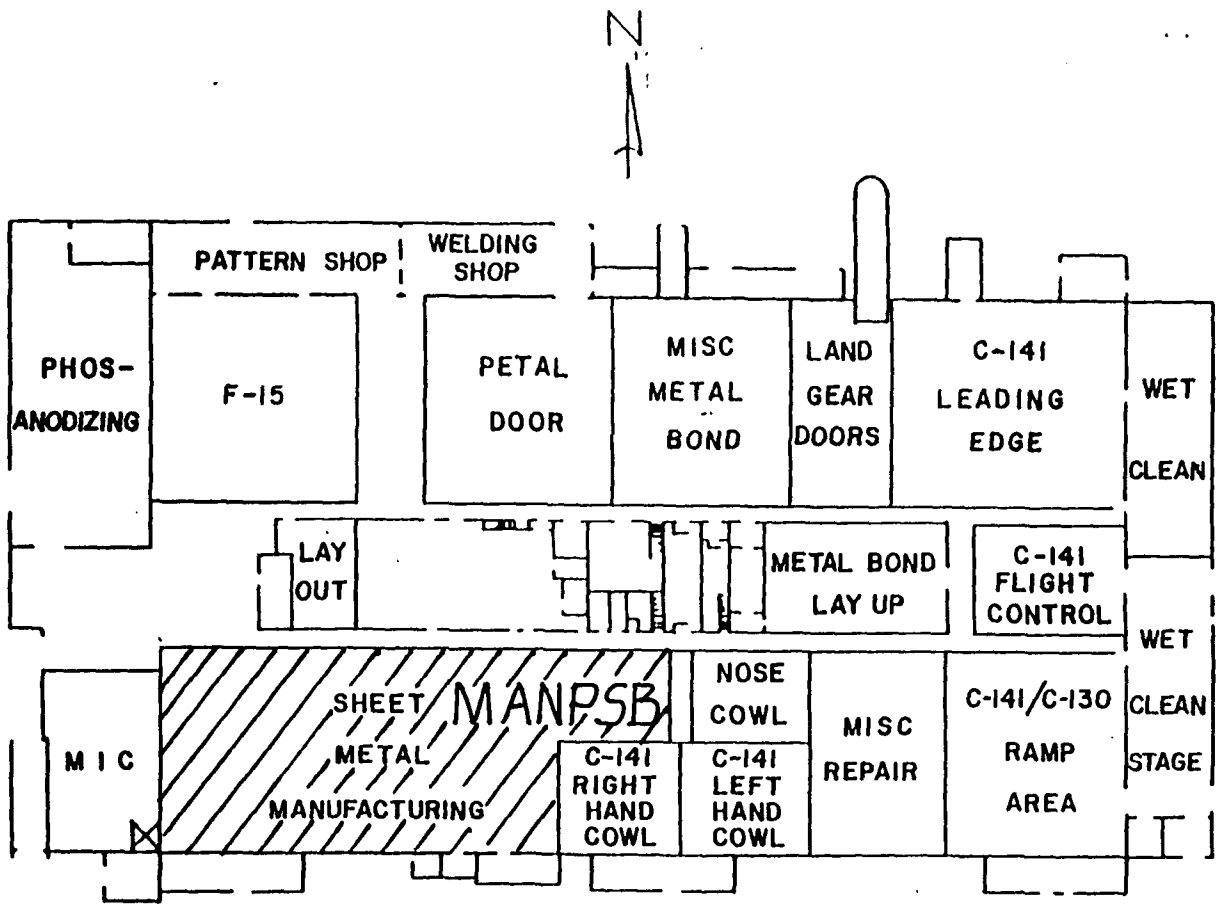
- Operation Profile
- Equipment Profile
- Manpower Profile
- Workload Profile
- Disassembly/Assembly Profile
- Parallel Process Profile
- "IN" Dates Profile
- "OUT" Dates Profile

The data collected for each RCC was from shop interviews with the shop foreman, workleaders, mechanics and from appropriate ALC personnel. Collected data were compiled in proper profile sheet for that RCC.

4.1 DATA COLLECTION PROCESS

- Data was collected for C/N or M number as identified by the 80/20 Analysis for a particular RCC.
- The shop foreman was requested to identify the person most familiar with each C/N of the 80/20 Analysis.
- The person identified by the shop foreman was interviewed by the Data Collector or Collectors transferred the data to the profile sheets.
- The profile for each C/N was compiled into a notebook for a particular RCC.
- The data was scrutinized by the working group members for completeness and correctness.
- The data collected will be used to generate the model input for each RCC.

*Note: This procedure will be revised and updated as required.



BLDG 169

BJB 5/5

POSITION DESCRIPTIONS

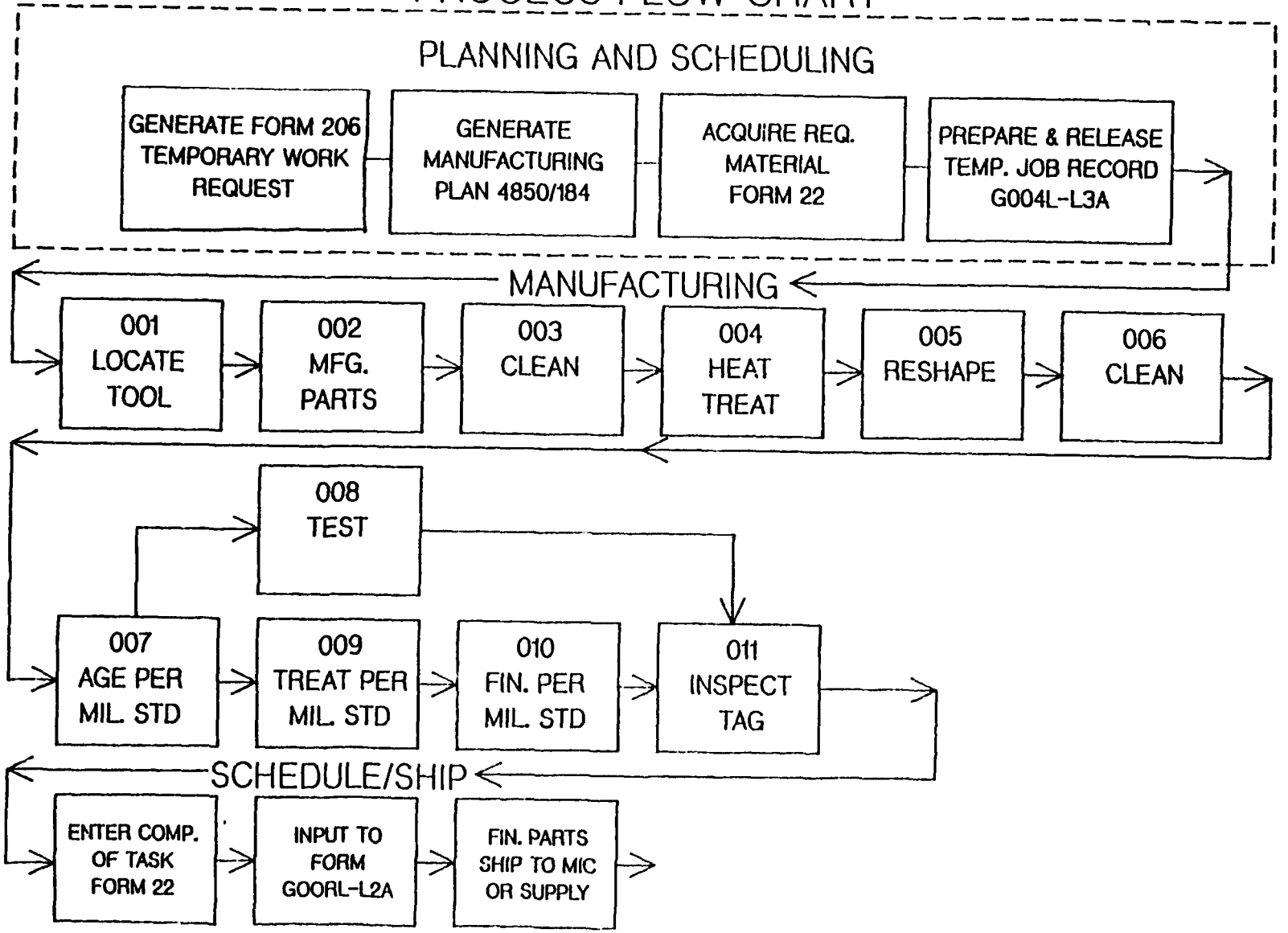
MANfSB SHEET METAL MANUFACTURING UNIT

CLASSIFICATION	TITLE	POSITION #
WS-3806-14	Sheet Metal Mechanic General Foreman	48105
WS-4616-12	Patternmaker Foreman	48106
WS-3806-10	Sheet Metal Mechanic Foreman	47885
WS-3872-08	Metal Tube Maker Foreman	50927
WG-4616-12	Patternmaker	48107
WG-3806-11	Sheet Metal Mechanic (Aircraft)	46001
WG-4654-10	Form Block Maker	48687
WG-3806-10	Sheet Metal Mechanic (A/C)	50359
WG-3872-09	Metal Tube Maker	48893
WG-3806-08	Sheet Metal Worker (On-Call)	46003
WG-3806-08	Sheet Metal Worker	46005
WG-3806-05	Sheet Metal Mechanic Helper	50889
WG-3806-05	Sheet Metal Mechanic Helper (On-Call)	13303
WG-3501-03	Worker Trainee	9M075
GS-0318-04	Secretary (Typing)	8070A
GS-2005-04	Supply Clerk (Typing)	12692

RCC: MANPSB PCN: M4764K NOUN: F-15 CANOPY FRAME

WR-ALC

PROCESS FLOW CHART



OPERATION PROFILE

NAME BASHAM ALC WR-ALC DATE 4/24 RCC MANPSB SHEET 1 OF 1

PCN/MSN/P/N M0221K WCD _____ WCD DATE _____

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
IN	MAIN PSB	REC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
7719	MAIN PSB	VELL	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		05					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

OPERATION PROFILE

NAME BOBSHYAM ALC WRALC DATE 4/24 RCC MANP8B3 SHEET 1 OF 1

PCN NSN P/N M0229K WCD — WCD DATE —

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
IN	MANP8B	R&C	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
9199	MANP8B	SEC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

SAS 8:21 WEDNESDAY, APRIL 5, 1989 16

OPERATION PROFILE

NAME BASHAM ALC WR DATE 4/24 RCC MANPSB SHEET 1 OF 5

ITEM CD PCN M0221K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	NOTE		1.0	T										
1	MANPSB	NOTE			S										
1	MANPSB	NOTE			P										
2	MANPSB	FAB			T										
2	MANPSB	FAB			S										
2	MANPSB	FAB			P		46001	1		16.0					
3	MAWPSB	NNPT			T										
3	MAWRSB	NNPT			S										
3	MAWPSB	NNPT			P										
4	MANPSB	NOTE			T										
4	MANPSB	NOTE			S										
4	MANPSB	NOTE			P										
5	MANPSB	FAB			T										

Delete op 002, 003
004 & 005
RB

BB

OPERATION PROFILE SAS

NAME ALC WR DATE 4/24 RCC MANPSB SHEET 2 OF 5

ITEM CD PCN M0221K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
5	MANPSB	FAB			S										
5	MANPSB	FAB			P		48107	1		24.0					
7	MANPSB	PROO		1.0	T		GS600 ~~50359~~	1		1.0					
7	MANPSB	PROO			S										
7	MANPSB	PROO		1.0	P		50359	1		2.0	0796	1		1.0	
8	MANPSB	FAB			T										
8	MANPSB	FAB			S										
8	MANPSB	FAB			P		50359	~~1~~ 1		0.8					
8	MANPSB	FAB			P		46005	1		0.8	0796	1		0.8	
9	MANPDA	PROC		1.0	T		GS600	1		0.5					
9	MANPDA	PROC			S										
9	MANPDA	PROC		1.0	P	40.0									
6	MANPDB	PROC			T										
					S										
6	MANPDB				P					48.0					

NAME BB OPERATION PROFILE SAS ALC WR DATE 4/24 RCC MANPSB SHEET 3 OF 5

ITEM CD PCN M0221K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
10	MANPDB	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
10	MANPDB	PROC	.	.	S	.		.	.	.		.	.	.	
10	MANPDB	PROC	.	1.0	P	50.0		.	.	.		.	.	.	
11	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
11	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
11	MANPSB	FAB	.	1.0	P	.	50359	1	.	0.3	0796	1	.	0.3	
11	MANPSB	FAB	.	.	P	.	46005	1	.	0.3		.	.	.	
12	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
12	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
12	MANPDA	PROC	.	1.0	P	40.0		.	.	.		.	.	.	
13	MANPDB		.	1.0	T	.	GS600	1	.	0.5		.	.	.	
13	MANPDB		.	.	S	.		.	.	.		.	.	.	
13	MANPDB		.	1.0	P	36.0		.	.	.		.	.	.	

OPERATION PROFILE

NAME BB ALC WR DATE 4/24 RCC MANPSB SHEET 4 OF 5

ITEM CD PCN M0221K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
14	MAQCMB	TEST	.	1.0	T	.	GS600	1	.	0.5	.	.	.	.	
14	MAQCMB	TEST	.	.	S	.	.	.	.	.	.	.	.	.	
14	MAQCMB	TEST	.	1.0	P	120.0	.	.	.	.	.	.	.	.	
15	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5	.	.	.	.	
15	MANPDA	PROC	.	.	S	.	.	.	.	.	.	.	.	.	
15	MANPDA	PROC	.	1.0	P	120.0	.	.	.	.	.	.	.	.	
16	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5	.	.	.	.	
16	MANPSB	FAB	.	.	S	.	.	.	.	.	.	.	.	.	
16	MANPSB	FAB	.	1.0	P	.	46005	1	.	0.5	.	.	.	.	
16	MANPSB	FAB	.	1.0	P	.	9M075	1	.	0.5	.	.	.	.	
17	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5	.	.	.	.	
17	MANPDA	PROC	.	.	S	.	.	.	.	.	.	.	.	.	

OPERATION PROFILE

NAME BB ALC WR DATE 4/24 RCC MANPSB SHEET 5 OF 5

ITEM CD PCN M0221K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
17	MANPDA	PROC	.	1.0	P	40.0		.	.	.		.	.	.	
18	MANPDC	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
18	MANPDC	PROC	.	.	S	.		.	.	.		.	.	.	
18	MANPDC	PROC	.	1.0	P	80.0		.	.	.		.	.	.	
19	MANPSB	INSP	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
19	MANPSB	INSP	.	.	S	.		.	.	.		.	.	.	
19	MANPSB	INSP	.	1.0	P	.	50359	1	.	3.0		.	.	.	
20	MANPDB		.	.	T										— DELETE — CREATED NEW OP: 006
20	MANPDB		.	.	S										
20	MANPDB		.	.	P	.		.	.	.		.	.	.	

SAS 8:21 WEDNESDAY, APRIL 5, 1989 11

OPERATION PROFILE

NAME BASHYAM ALC WR DATE 4/24 RCC MANPSB SHEET 1 OF 5

ITEM CD PCN M0220K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	NOTE	.	1.0	T	.		.	.	.		.	.	.	
1	MANPSB	NOTE	.	.	S	.		.	.	.		.	.	.	
1	MANPSB	NOTE	.	.	P	.		.	.	.		.	.	.	
2	MANPSB	FAB	.	.	T	.		.	.	.		.	.	.	
2	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
2	MANPSB	FAB	.	.	P	.	46001	1	.	40.0		.	.	.	
3	MANPSB	NOTE	.	.	T	.		.	.	.		.	.	.	
3	MANPSB	NOTE	.	.	S	.		.	.	.		.	.	.	
3	MANPSB	NOTE	.	.	P	.		.	.	.		.	.	.	
4	MANPSB	FAB	.	.	T	.		.	.	.		.	.	.	
4	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
4	MANPSB	FAB	.	.	P	.	48107	1	.	68.0		.	.	.	
6	MANPSB	PROO	.	1.0	T	.	50359	1	.	2.0		.	.	.	
5	MANPSB	POOR			T										
5					S										
5					P					18.0					

Delete OP 2, 3 & 4

BB

NAME PBB OPERATION PROFILE SAS 8:21 WEDNESDAY, APRIL 5, 1989 12

ALC WR DATE 4/24 RCC MANPSB SHEET 2 OF 5

ITEM CD PCN M0220K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
6	MANPSB	PROO	.	.	S	.		.	.	.		.	.	.	
6	MANPSB	PROO	.	1.0	P	.	50359	1	.	~~12.0~~ 4.0	0796	1	.	4.0	
7	MANPSB	FAB	.	.	T	.		.	.	.		.	.	.	
7	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
7	MANPSB	FAB	.	1.0	P	.	50359	~~2~~ 1	.	~~2.0~~ 1.0		.	.	.	
7	MANPSB	FAB	.	.	P	.	46005	1	.	2.0	0796	1	.	2.0	
8	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
8	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
8	MANPDA	PROC	.	1.0	P	40.0		.	.	.		.	.	.	
9	MANPDB	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
9	MANPDB	PROC	.	.	S	.		.	.	.		.	.	.	
9	MANPDB	PROC	.	1.0	P	50.0		.	.	.		.	.	.	
07A	MANPMD	DRIL		1.0	T		GS600	1		0.5					
07A				1.0	S										
07A	MANPMD	DRIL		1.0	P	50.0									

OPERATION PROFILE

NAME BB ALC WR DATE 4/24 RCC MANPSB SHEET 3 OF 5

ITEM CD PCN M0220K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
10	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
10	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
10	MANPSB	FAB	.	1.0	P	.	50359	2	.	0.8	0796	1	.	0.8	
11	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
11	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
11	MANPDA	PROC	.	1.0	P	40.0		.	.	.		.	.	.	
12	MANPDB		.	1.0	T	.	GS600	1	.	0.5		.	.	.	
12	MANPDB		.	.	S	.		.	.	.		.	.	.	
12	MANPDB		.	1.0	P	36.0		.	.	.		.	.	.	
13	MAQCMB	TEST	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
13	MAQCMB	TEST	.	.	S	.		.	.	.		.	.	.	
13	MAQCMB	TEST	.	1.0	P	120.0		.	.	.		.	.	.	
14	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	

NAME BB

OPERATION PROFILE SAS

8:21 WEDNESDAY, APRIL 5, 1989 14

ITEM CD PCN M0220K ALC WR DATE 4/24 RCC MANPSB SHEET 4 OF 5

WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
14	MANPDA	PROC	.	.	S	.	.	.	.	.	.	.	.	.	
14	MANPDA	PROC	.	1.0	P	120.0	.	.	.	.	.	.	.	.	
15	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5	.	.	.	.	
15	MANPSB	FAB	.	.	S	.	.	.	.	.	.	.	.	.	
15	MANPSB	FAB	.	1.0	P	.	46005	1	.	~~1.5~~ 0.5	.	.	.	.	
15	MANPSB	FAB	.	.	P	.	9M075	1	.	1.5	.	.	.	.	
16	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5	.	.	.	.	
16	MANPDA	PROC	.	.	S	.	.	.	.	.	.	.	.	.	
16	MANPDA	PROC	.	1.0	P	60.0	.	.	.	.	.	.	.	.	
17	MANPDC	PROC	.	1.0	T	.	GS600	1	.	0.5	.	.	.	.	
17	MANPDC	PROC	.	.	S	.	.	.	.	.	.	.	.	.	
17	MANPDC	PROC	.	1.0	P	80.0	.	.	.	.	.	.	.	.	

OPERATION PROFILE

NAME BB ALC WR DATE 4/24 RCC MANPSB SHEET 5 OF 5

ITEM CD PCN M0220K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
18	MANPSB	INSP	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
18	MANPSB	INSP	.	.	S	.		.	.	.		.	.	.	
18	MANPSB	INSP	.	1.0	P	.	50359	1	.	8.0		.	.	.	
19	MANPDB		.		T	.		.	.	.		.	.	.	
19	MANPDB		.	.	S	.	DELETE CREATED NEW OP. 005	.	.	.		.	.	.	
19	MANPDB		.	.	P	.		.	.	.		.	.	.	
20	MANPMD		.	.	T	.	DELETE	.	.	.		.	.	.	
20	MANPMD		.	.	S	.	CREATED NEW OPERATION NUMBER 07A	.	.	.		.	.	.	
20	MANPMD		.	.	P	.		.	.	.		.	.	.	

SAS

OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 6

NAME BASHYAM ALC WR DATE 4/22 RCC MANPSB SHEET 1 OF 5

ITEM CD PCN M0219K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	NOTE	.	1.0	T	.		.	.	.		.	.	.	
1	MANPSB	NOTE	.	.	S	.		.	.	.		.	.	.	
1	MANPSB	NOTE	.	.	P	.		.	.	.		.	.	.	
2	MANPSB	FAB	.	.	T	.		.	.	.		.	.	.	
2	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
2	MANPSB	FAB	.	.	P	.	46001	1	.	40.0		.	.	.	
3	MANPSB	NOTE	.	.	T	.		.	.	.		.	.	.	
3	MANPSB	NOTE	.	.	S	.		.	.	.		.	.	.	
3	MANPSB	NOTE	.	.	P	.		.	.	.		.	.	.	
4	MANPSB	FAB	.	.	T	.		.	.	.		.	.	.	
4	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
4	MANPSB	FAB	.	.	P	.	48107	1	.	68.0		.	.	.	
8	MANPSB	PROO	.	1.0	T	.	50359	1	.	2.0		.	.	.	

DELETE OP, 2, 3 & 4

BB

5 MANPDB PROC T

5 5

5 P 48.0 DELETE

SAS

OPERATION PROFILE 8:21 WEDNESDAY, APRIL 5, 1989 7

NAME BBB ALC WR DATE _____ RCC MANPSB SHEET 2 OF 5

ITEM CD PCN M0219K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
6	MANPSB	PROO			S										
6	MANPSB	PROO		1.0	P		50359	1		~~4.0~~ 4.0	0796	1		4.0	
7	MANPSB	FAB			T										
7	MANPSB	FAB			S										
7	MANPSB	FAB		1.0	P		50359	~~2~~ 1		~~2.0~~ 1.0					
7	MANPSB	FAB			P		9M075	1		2.0	0796	1		2.0	
8	MANPDA	PROC		1.0	T		G5600	1		0.5					
8	MANPDA	PROC			S										
8	MANPDA	PROC		1.0	P	40.0									
9	MANPDB			1.0	T		G5600	1		0.5					
9	MANPDB				S										
9	MANPDB			1.0	P	50.0									

SAS

OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 8

NAME PBB ALC WR DATE _____ RCC MANPSB SHEET 3 OF 5

ITEM CD PCN M02198 WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
10	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
10	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
10	MANPSB	FAB	.	1.0	P	.	50359	1	.	0.8	0796	1	.	0.8	
10	MANPSB	FAB	.	1.0	P	.	9M075	1	.	0.8		.	.	.	
11	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
11	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
11	MANPDA	PROC	.	1.0	P	40.0		.	.	.		.	.	.	
12	MANPDB	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
12	MANPDB	PROC	.	.	S	.		.	.	.		.	.	.	
12	MANPDB	PROC	.	1.0	P	36.0		.	.	.		.	.	.	
13	MAQCMB	TEST	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
13	MAQCMB	TEST	.	.	S	.		.	.	.		.	.	.	
13	MAQCMB	TEST	.	1.0	P	120.0		.	.	.		.	.	.	

OPERATION PROFILE

NAME BB ALC WR DATE RCC MANPSB SHEET 4 OF 5

ITEM CD PCN M0219K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
14	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
14	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
14	MANPDA	PROC	.	1.0	P	120.0		.	.	.		.	.	.	
15	MANPSB	FAB	.	1.0	T	.	GS600	1	.	1.0		.	.	.	
15	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
15	MANPSB	FAB	.	1.0	P	.	46005	1	.	0.5 ~~1.5~~		.	.	.	
15	MANPSB	FAB	.	1.0	P	.	9M075	1	.	1.5		.	.	.	
16	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
16	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
16	MANPDA	PROC	.	1.0	P	60.0		.	.	.		.	.	.	
17	MANPDC	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
17	MANPDC	PROC	.	.	S	.		.	.	.		.	.	.	

PdB

OPERATION PROFILE

NAME _____ ALC WR DATE _____ RCC MANPSB SHEET 5 OF 5

ITEM CD PCN M0219K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
17	MANPDC	PROC	.	1.0	P	80.0		.	.	.		.	.	.	
18	MANPSB	INSP	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
18	MANPSB	INSP	.	.	S	.		.	.	.		.	.	.	
18	MANPSB	INSP	.	1.0	P	.	50359	1	.	8.0		.	.	.	
19	MANPDB		.	.	T	.		.	.	.		.	.	.	
19	MANPDB		.	.	S	.	DELETE.	.	.	.		.	.	.	
19	MANPDB		.	.	P	.	CREATED NEW OP.005	.	.	.		.	.	.	

NAME BOBSHYAM OPERATION PROFILE SAS 8:21 WEDNESDAY, APRIL 5, 1989 21

ALC WR DATE 4/24 RCC MANPSB SHEET 1 OF 5

ITEM CD PCN M0229K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	NOTE		1.0	T										
1	MANPSB	NOTE			S										
1	MANPSB	NOTE			P										
2	MANPSB	FAB			T										
2	MANPSB	FAB			S										
2	MANPSB	FAB			P		46001	1		40.0					
3	MANPSB	NOTE			T										
3	MANPSB	NOTE			S										
3	MANPSB	NOTE			P										
4	MANPSB	FAB			T										
4	MANPSB	FAB			S										
4	MANPSB	FAB			P		48107	1		68.0					
8	MANPSB	PROO		1.0	T		50359	1		2.0					
5	MANPDB	POUR			T										
5					S										
5	MANPDB	POUR			P					48.0					

Delete op 002, 002, 004

PDB

SAS

OPERATION PROFILE

NAME BB ALC WR DATE 4/24 RCC MANPSB SHEET 2 OF 5

ITEM CD PCN M0229K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
6	MANPSB	PROO			S										
6	MANPSB	PROO		1.0	P		50359	1		4.0 ~~12.0~~	0796	1		4.0	
7	MANPSB	FAB			T										
7	MANPSB	FAB			S										
7	MANPSB	FAB		1.0	P		50359	1		1.0 ~~2.0~~	0796	1		2.0	
7	MANPSB	FAB		1.0	P		46005	1		2.0					
8	MANPDA	PROC		1.0	T		GS600	1		0.5					
8	MANPDA	PROC			S										
8	MANPDA	PROC		1.0	P	40.0									
9	MANPDB	PROC		1.0	T		GS600	1		0.5					
9	MANPDB	PROC			S										
9	MANPDB	PROC		1.0	P	50.0									

SAS

OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 23

NAME BOB ALC WR DATE 4/24 RCC MANPSB SHEET 3 OF 5

ITEM CD PCN M0229K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
10	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
10	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
10	MANPSB	FAB	.	1.0	P	.	50359	1	.	0.8	0796	1	.	0.8	
10	MANPSB	FAB	.	.	P	.	9M075	1	.	0.8		.	.	.	
11	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
11	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
11	MANPDA	PROC	.	1.0	P	30.0		.	.	.		.	.	.	
12	MANPDB	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
12	MANPDB	PROC	.	.	S	.		.	.	.		.	.	.	
12	MANPDB	PROC	.	1.0	P	36.0		.	.	.		.	.	.	
13	MAQCMB	TEST	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
13	MAQCMB	TEST	.	.	S	.		.	.	.		.	.	.	
13	MAQCMB	TEST	.	1.0	P	120.0		.	.	.		.	.	.	

SAS

OPERATION PROFILE

NAME Bob ALC WR DATE 4/24 RCC MANPSB SHEET 4 OF 5

ITEM CD PCN MD229K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
14	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
14	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
14	MANPDA	PROC	.	1.0	P	120.0		.	.	.		.	.	.	
15	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
15	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
15	MANPSB	FAB	.	1.0	P	.	46005	1	.	0.5 ~~1.5~~		.	.	.	
15	MANPSB	FAB	.	1.0	P	.	9M075	1	.	1.5		.	.	.	
16	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
16	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
16	MANPDA	PROC	.	1.0	P	40.0		.	.	.		.	.	.	
17	MANPDC		.	1.0	T	.	GS600	1	.	0.5		.	.	.	
17	MANPDC		.	.	S	.		.	.	.		.	.	.	

NAME PSB

OPERATION PROFILE SAS

8:21 WEDNESDAY, APRIL 5, 1989 25

ITEM CD PCN M0229K ALC WR WCD WCDDATE DATE 4/24 RCC MANPSB SHEET 5 OF 5

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
17	MANPDC			1.0	P	80.0									
18	MANPSB	INSP		1.0	T		GS600	1		0.5					
18	MANPSB	INSP			S										
18	MANPSB	INSP		1.0	P		46005	1		8.0					
18	MANPSB	INSP		1.0	P		9M075	1		8.0					
19	MANPDB				T										
19	MANPDB				S										
19	MANPDB				P										

DELETE

CREATED NEW OP. 005

MANPSB:

HISTORICALLY "IN DATE" 1L.

"OUT DATE" 1 ~~2~~ DAYS

SAS

OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 1

NAME BASHYAM ALC WR DATE 4/22 RCC MANPSB SHEET 1 OF 5

ITEM CD PCN M0218K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	NOTE		1.0	T										
1	MANPSB	NOTE			S										
1	MANPSB	NOTE			P										
2	MANPSB	FAB			T										
2	MANPSB	FAB			S										
2	MANPSB	FAB			P			1		40.0					
3	MANPSB	NOTE			T										
3	MANPSB	NOTE			S										
3	MANPSB	NOTE			P										
4	MANPSB	FAB			T										
4	MANPSB	FAB			S										
4	MANPSB	FAB			P		48107	1		68.0					
5	MANPDB	POUR			T										

DELETE

Delete op. 002, 003, 005 & 005

OPERATION PROFILE SAS 8:21 WEDNESDAY, APRIL 5, 1989 2

NAME BB ALC WR DATE _____ RCC MANPSB BB SHEET 2 OF 5

ITEM CD PCN M0218K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
5	~~MANPDB~~ MANPSB	~~POUR~~	.	.	S	.		.	.	.		.	.	.	
5	~~MANPDB~~ MANPSB	~~POUR~~	.	.	P	~~18.0~~		.	.	.		.	.	.	
6	MANPSB	PROF	.	1.0	T	.	50359	1	.	2.0		.	.	.	
6	MANPSB	PROF	.	.	S	.		.	.	.		.	.	.	
6	MANPSB	PROF	.	1.0	P	.	50359	1	.	~~2.0~~ 4.0	0796	1	.	4.0	
7	MANPSB	FAB	.	.	T	.		.	.	.		.	.	.	
7	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
7	MANPSB	FAB	.	1.0	P	.	50359	~~2~~ 1	.	~~2.0~~ 1.0	0796	1	.	2.0	
7	MANPSB	FAB	.	1.0	P	.	46005	1	.	~~2.0~~ 1.0		.	.	.	
8	MANPDA	PROC	.	1.0	T	.	G5600	1	.	0.5		.	.	.	
8	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
8	MANPDA	PROC	.	1.0	P	40.0		.	.	.		.	.	.	

SAS

OPERATION PROFILE

NAME PAB ALC WR DATE _____ RCC MANPSB SHEET 3 OF 5

ITEM CD PCN M0218K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
9	MANPDB	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
9	MANPDB	PROC	.	.	S	.		.	.	.		.	.	.	
9	MANPDB	PROC	.	1.0	P	50.0		.	.	.		.	.	.	
10	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
10	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
10	MANPSB	FAB	.	1.0	P	.	50359	1	.	0.8	0796	1	.	0.7	
10	MANPSB	FAB	.	1.0	P	.	46005	1	.	0.8		.	.	.	
11	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
11	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
11	MANPDA	PROC	.	1.0	P	40.0		.	.	.		.	.	.	
12	MANPDB	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
12	MANPDB	PROC	.	.	S	.		.	.	.		.	.	.	
12	MANPDB	PROC	.	1.0	P	36.0		.	.	.		.	.	.	

OPERATION PROFILE

NAME RB ALC WR DATE _____ RCC MANPSB SHEET 4 OF 5

ITEM CD PCN M0218K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
13	MAQCMB	TEST	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
13	MAQCMB	TEST	.	.	S	.		.	.	.		.	.	.	
13	MAQCMB	TEST	.	1.0	P	120.0		.	.	.		.	.	.	
14	MANPDA	PROC	.	1.0	T	.	GS600	1	.	1.0		.	.	.	
14	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
14	MANPDA	PROC	.	1.0	P	120.0		.	.	.		.	.	.	
15	MANPSB	FAB	.	1.0	T	.	GS600	1	.	1.0		.	.	.	
15	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
15	MANPSB	FAB	.	1.0	P	.	46005	1	.	0.5 ~~1.5~~		.	.	.	
15	MANPSB	FAB	.	1.0	P	.	9M075	1	.	1.5		.	.	.	
16	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
16	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	

SAS

OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 5

NAME BB ALC WR DATE _____ RCC MANPSB SHEET 5 OF 5

ITEM CD PCN M0218K WCD WCDDATE

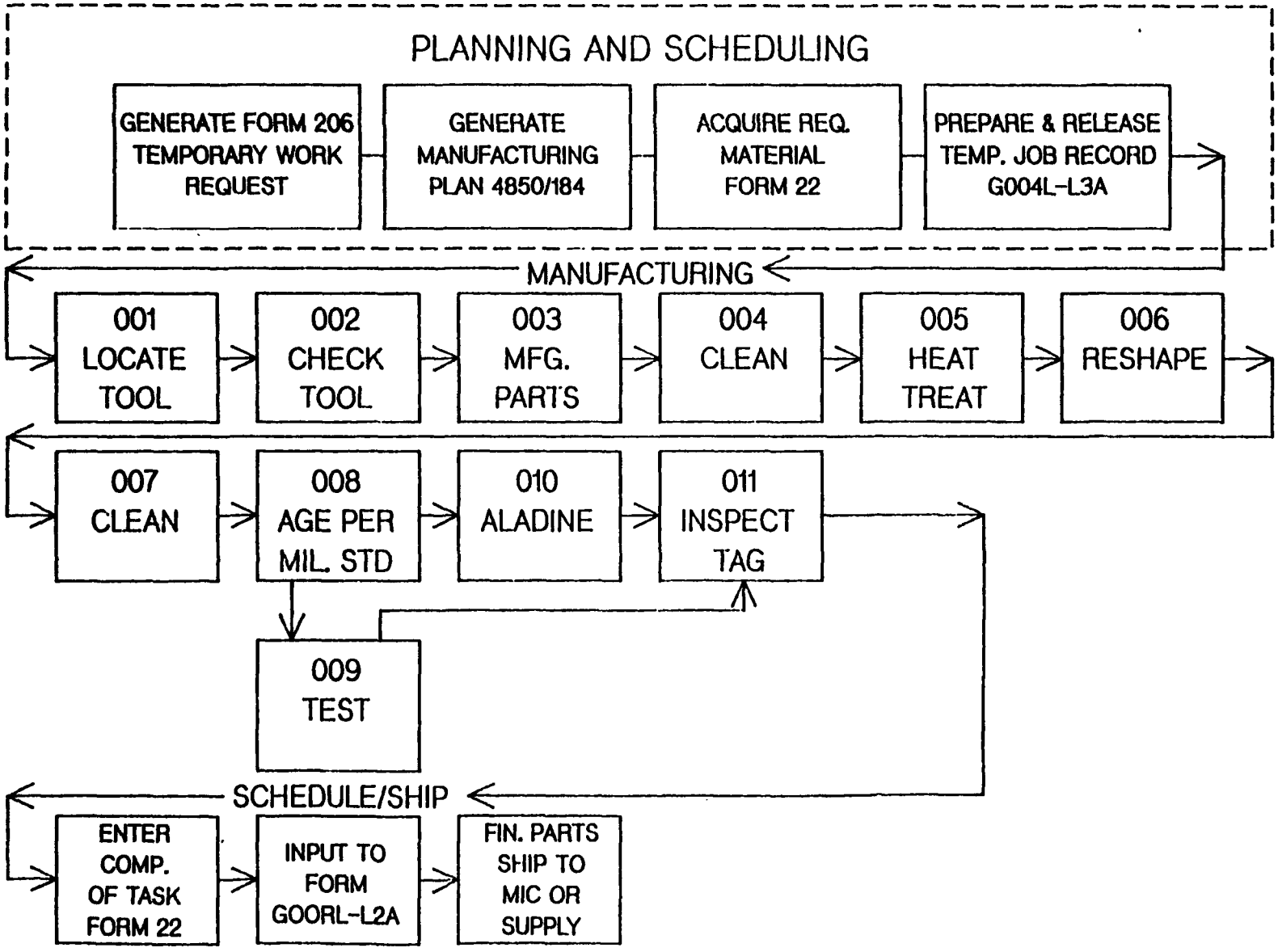
OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
16	MANPDA	PROC	.	1.0	P	60.0		.	.	.		.	.	.	
17	MANPDC	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
17	MANPDC	PROC	.	.	S	.		.	.	.		.	.	.	
17	MANPDC	PROC	.	1.0	P	80.0		.	.	.		.	.	.	
18	MANPSB	INSP	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
18	MANPSB	INSP	.	.	S	.		.	.	.		.	.	.	
18	MANPSB	INSP	.	1.0	P	.	50359	1	.	8.0		.	.	.	
19	MANPDB	PROC	.	.	T	.		.	.	.		.	.	.	
19	MANPDB	PROC	.	.	S	.		.	.	.		.	.	.	
19	MANPDB	PROC	.	.	P	.		.	.	.		.	.	.	

DELETE

UPDATED INTO OP. 005

RCC. MANPSB PCN: M1864K, M1866K NOUN: ANGLE

WR-ALC PROCESS FLOW CHART



OPERATION PROFILE

NAME BASHYAM ALC WR-ALC DATE 4/22/89 RCC MANPSB SHEET 1 OF 1

PCN / NSN / PN M1864K WCD — WCD DATE —

	OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
X	IN	MAN PSB	REC	1.0	TRANSIT											
					SETUP											
					PROCESS		1.0	50359	1		0.5					
X	9999	MAN PSB	SELL	1.0	TRANSIT											
					SETUP											
					PROCESS		1.0	50359	1		0.5					
					TRANSIT											
					SETUP											
					PROCESS											
					TRANSIT											
					SETUP											
					PROCESS											
					TRANSIT											
					SETUP											
					PROCESS											

LSC-200020

OPERATION PROFILE

NAME BASTIAN ALC WR ALC DATE 4/22 RCC MANPSB SHEET 1 OF 1

PCN
NSN
P/N M1866K WCD WCD DATE

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
VIN	MAN/ PSB	REC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
9999	MAN/ PSB	SEL	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50377	1		0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

LSC-200920

SAS

OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 30

NAME BASHYAM ALC WR DATE 4/22 RCC MANPSB SHEET 1 OF 3

ITEM CD PCN M1864K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	~~MOVE~~ MOVE	.	1.0	T	.	GS600	1	.	1.0		.	.	.	
1	MANPSB	~~MOVE~~	.	.	S	—	.	.	.	.		.	.	.	
1	MANPSB	~~MOVE~~	.	1.0	P	.	50359	1	.	0.8		.	.	.	
2	MANPSB	CHCK ~~INSP~~	.	.	T	.	.	.	.	.		.	.	.	
2	MANPSB	CHCK ~~INSP~~	.	.	S	.	.	.	.	.		.	.	.	
2	MANPSB	CHCK ~~INSP~~	.	1.0	P	.	46001	1	.	0.1		.	.	.	
3	MANPSB	CUT	.	.	T	.	.	.	.	.		.	.	.	
3	MANPSB	CUT	.	1.0	S	.	46005	1	.	0.1 1242		1	.	0.1	
3	MANPSB	CUT	.	1.0	P	.	46005	1	.	0.5		.	.	.	
3	MANPSB	FORM	.	1.0	P	.	46005	2	.	1.0	1242	1	.	1.0	
3	MANPSB	FINI	.	1.0	P	.	46005	1	.	0.3		.	.	.	
4	MANPDA	PROC	.	1.0	T	.	GS600	1	.	1.0		.	.	.	
4	MANPDA	PROC	.	.	S	.	.	.	.	.		.	.	.	

OPERATION PROFILE SAS 4/22

NAME [illegible] ALC WR DATE RCC MANPSB SHEET 2 OF 3

ITEM CD PCN M1864K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
4	MANPDA	PROC	.	1.0	P	40.0		.	.	.		.	.	.	
5	MANPDB	PROC	.	1.0	T	.	GS600	1	.	1.0		.	.	.	
5	MANPDB	PROC	.	.	S	.		.	.	.		.	.	.	
5	MANPDB	PROC	.	1.0	P	60.0		.	.	.		.	.	.	
6	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
6	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
6	MANPSB	FAB	.	1.0	P	.	46005	1	.	0.5		.	.	.	
7	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
7	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
7	MANPDA	PROC	.	1.0	P	48.0		.	.	.		.	.	.	
8	MANPDB	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
8	MANPDB	PROC	.	.	S	.		.	.	.		.	.	.	

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OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 32

NAME BB ALC WR DATE 4/12 RCC MANPSB SHEET 3 OF 3

ITEM CD PCN 41864K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
8	MANPDB	PROC	.	1.0	P	50.0		.	.	.		.	.	.	
9	MAQCMB	TEST	.	1.0	T	.	G5600	1	.	0.5		.	.	.	
9	MAQCMB	TEST	.	.	S	.		.	.	.		.	.	.	
9	MAQCMB	TEST	.	1.0	P	60.0		.	.	.		.	.	.	
10	MANPDA	PROC	.	1.0	T	.	G5600	1	.	0.5		.	.	.	
10	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
10	MANPDA	PROC	.	1.0	P	50.0		.	.	.		.	.	.	
11	MANPSB	INSP	.	1.0	T	.	G5600	1	.	0.5		.	.	.	
11	MANPSB	INSP	.	.	S	.		.	.	.		.	.	.	
11	MANPSB	INSP	.	1.0	P	.	50359	1	.	0.5		.	.	.	
11	MANPSB	INSP	.	1.0	P	.	46005	1	.	0.5		.	.	.	

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OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 33

NAME BARHAM ALC WR DATE 1/22 RCC MANPSB SHEET 1 OF ___

ITEM CD PCN M1866K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	MOVE	.	1.0	T	.	GS600	1	.	1.0		.	.	.	
1	MANPSB	MOVE	.	.	S	—		.	.	.		.	.	.	
1	MANPSB	MOVE	.	1.0	P	.	50359	1	.	0.8		.	.	.	
2	MANPSB	INSP	.	.	T	.		.	.	.		.	.	.	
2	MANPSB	INSP	.	.	S	.		.	.	.		.	.	.	
2	MANPSB	INSP	.	1.0	P	.	46001	1	.	0.1		.	.	.	
3	MANPSB	CUT	.	.	T	.		.	.	.		.	.	.	
3	MANPSB	CUT	.	1.0	S	.	46005	1	.	0.1	1242	1	.	0.1	
3	MANPSB	CUT	.	1.0	P	.	46005	1	.	0.5		.	.	.	
3	MANPSB	FORM	.	1.0	P	.	46005	2	.	1.0	1242	1	.	1.0	
3	MANPSB	FORM	.	1.0	P	.	46005	1	.	0.3		.	.	.	
4	MANPDA	PROC	.	1.0	T	.	GS600	1	.	1.0		.	.	.	
4	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	

NAME BB OPERATION PROFILE SAS 8:21 WEDNESDAY, APRIL 5, 1989 34

ALC WR DATE 4/22 RCC MANPSB SHEET 2 OF 3

ITEM CD PCN M1866K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
4	MANPDA	PROC	.	1.0	P	40.0		.	.	.		.	.	.	
5	MANPDB	PROC	.	1.0	T	.	GS600	1	.	1.0		.	.	.	
5	MANPDB	PROC	.	.	S	.		.	.	.		.	.	.	
5	MANPDB	PROC	.	1.0	P	60.0		.	.	.		.	.	.	
6	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
6	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
6	MANPSB	FAB	.	1.0	P	.	46005	1	.	0.5		.	.	.	
7	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
7	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
7	MANPDA	PROC	.	1.0	P	48.0		.	.	.		.	.	.	
8	MANPDB	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
8	MANPDB	PROC	.	.	S	.		.	.	.		.	.	.	

OPERATION PROFILE

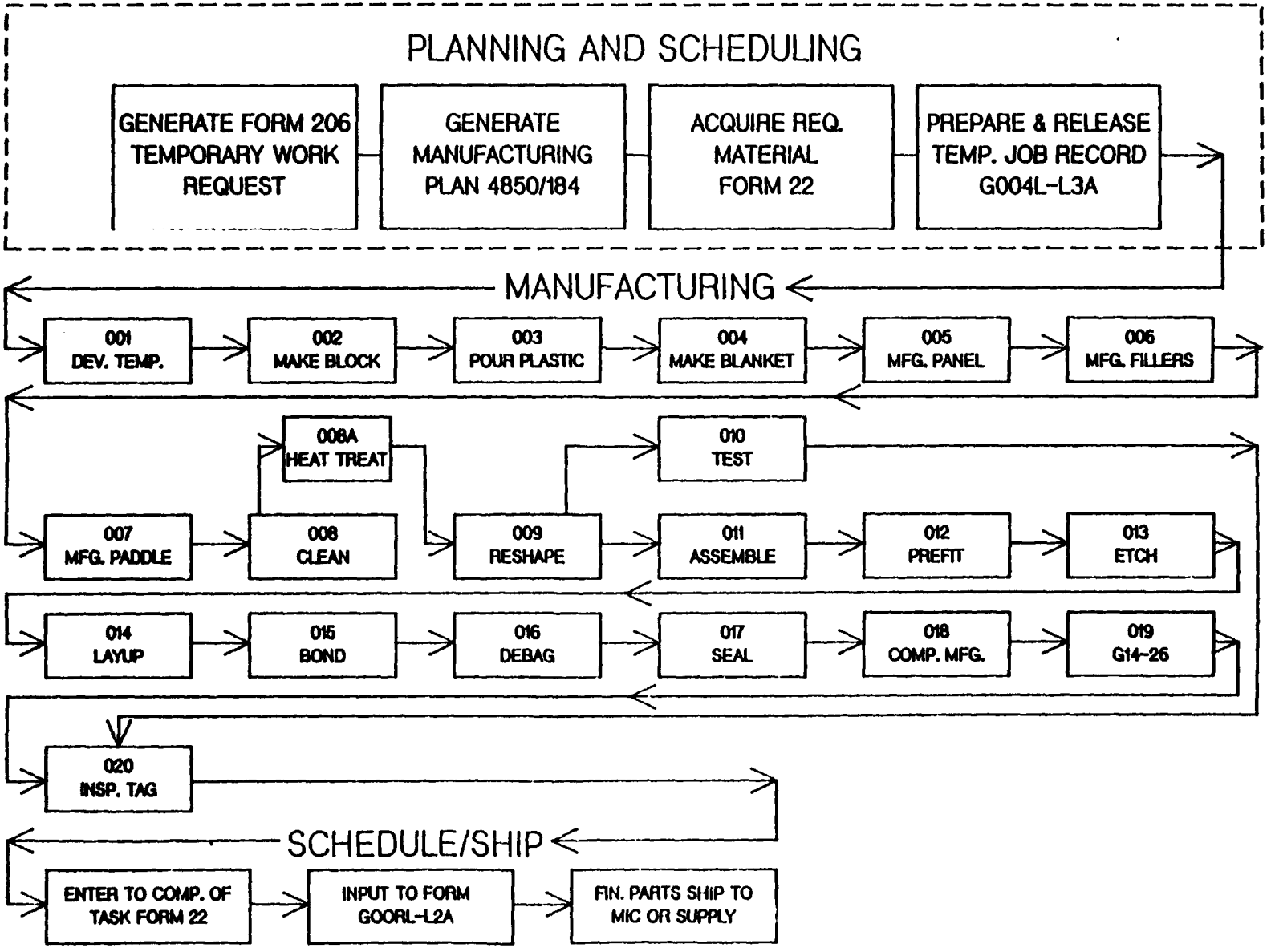
NAME BB ALC WR DATE 4/22 RCC MANPSB SHEET 3 OF 3

ITEM CD PCN M1866K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
8	MANPDB	PROC	.	1.0	P	50.0		.	.	.		.	.	.	
9	MAQCMB	TEST	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
9	MAQCMB	TEST	.	.	S	.		.	.	.		.	.	.	
9	MAQCMB	TEST	.	1.0	P	60.0		.	.	.		.	.	.	
10	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
10	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
10	MANPDA	PROC	.	1.0	P	50.0		.	.	.		.	.	.	
11	MANPSB	INSP	.	1.0	T	.	GS600	.1	.	0.5		.	.	.	
11	MANPSB	INSP	.	.	S	.		.	.	.		.	.	.	
11	MANPSB	INSP	.	1.0	P	.	50359	1	.	0.5		.	.	.	
11	MANPSB	INSP	.	1.0	P	.	46005	1	.	0.5		.	.	.	

RCC. MANPSB PCN: M5243K, M9929K, M5743K NOUN: SKIN PADDLE ASSEMBLY

WR-ALC PROCESS FLOW CHART



OPERATION PROFILE

NAME BASHYAM ALC WR-ALC DATE 4/25 RCC MAN PBB SHEET 1 OF 1

PCN
NSN
P/N M5743K WCD WCD DATE

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
X IN	MAN PBB	REC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359			0.5					
✓ 99999	MAN PBB	STOW	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359			0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

LSC-20002C

OPERATION PROFILE

NAME BOSHYAM ALC NRMLC DATE 4/24 RCC MANPSB SHEET 1 OF 1

PCN / RSN / PIN M5243K WCD — WCD DATE —

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
X IN	MANN PSB	REC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359			0.5					
X 9999	MANN PSB	SELL	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359			0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

OPERATION PROFILE

NAME BASHYAM ALC WR-ALC DATE 4/25 RCC MANPSB SHEET 1 OF 1

PCN
NSN
P/N M7729K WCD ---- WCD DATE ----

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
IN	MAN PSB	REC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359			0.5					
19999	MAN PSB	SELL	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359			0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

SAS

OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 45

NAME BASHYAM ALC WR DATE 4/24 RCC MANPSB SHEET 1 OF 7

ITEM CD PCN M5243K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	FAB			T										
1	MANPSB	FAB			S										
1	MANPSB	FAB			P		46001	1		80.0					
2	MANPSB	FAB			T										
2	MANPSB	FAB			S										
2	MANPSB	FAB			P		48687	1		120.0 ~~80.0~~					
3	MANPSD				T		GS600	1		3.0					
3	MANPSD				S										
3	MANPSD				P		80.0								
4	MANPSD				T										
4	MANPSD				S										
4	MANPSD				P		80.0								
5	MANPSB	CUT		1.0	T		GS600	1		0.5					

Delete op. 1, 2, 3 & 4.

NAME BB OPERATION PROFILE SAS 8:21 WEDNESDAY, APRIL 5, 1989 46

ITEM CD PCN M5243K ALC WR WCD WCDDATE DATE 4/24 RCC MANPSB SHEET 2 OF 7

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
5	MANPSB	CUT	.	1.0	S	.	50359	1	.	1.0			.		
5	MANPSB	CUT	.	1.0	P	.	50359	1	.	0.8			.		
5	MANPSB	CUT	.	1.0	P	.	50889	1	.	0.8			.		
6	MANPSB	CUT	.	.	T	.			.				.		
6	MANPSB	CUT	.	1.0	S	.	50359	1	.	2.0	0794	1	.	2.0	
6	MANPSB	CUT	.	1.0	P	.	50359	1	.	0.8			.		
6	MANPSB	ROUT	.	1.0	P	.	50889	1	.	0.8	0794	1	.	0.3	
7	MANPSB	CUT	.	.	T	.			.				.		
7	MANPSB	CUT	.	1.0	S	.	50359	1	.	2.0		1	.	2.0	
7	MANPSB	CUT	.	1.0	P	.	50359	1	.	12.0	1242	1	.	1.0	
7	MANPSB	DRIL	.	1.0	P	.	50889	1	.	12.0			.		
8	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5			.		
OBA	MNPDB	HEAT		1.0	T		GS600	1		0.5					
OBA	"	"			S										

SAS

OPERATION PROFILE

NAME BBB ALC WR DATE 4/24 RCC MANPSB SHEET 3 OF 7

ITEM CD PCN M5243K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HR'S	NOTES
8	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
8	MANPDA	PROC	.	1.0	P	40.0		.	.	.		.	.	.	
9	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
9	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
9	MANPSB	FAB	.	1.0	P	.	50359	1	.	1.0	1242	1	.	0.5	
9	MANPSB	FAB	.	1.0	P	.	50889	1	.	1.0		.	.	.	
10	MAQCMB	TEST	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
10	MAQCMB	TEST	.	.	S	.		.	.	.		.	.	.	
10	MAQCMB	TEST	.	1.0	P	120.0		.	.	.		.	.	.	
11	MANPSB	ASSY MOVE	.	1.0	T	.		.	.	.		.	.	.	
11	MANPSB	ASSY MOVE	.	.	S	.		.	.	.		.	.	.	
11	MANPSB	ASSY MOVE	.	1.0	P	.	50359	1	.	0.1		.	.	.	
11	MANPSB	ASSY MOVE	.	1.0	P	.	50889	1	.	0.1		.	.	.	

SAS

OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 48

NAME BB ALC WR DATE 4/24 RCC MANPSB SHEET 4 OF 7

ITEM CD PCN M5243K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
12	MANPSA	FIT	.	1.0	T	.	GS600	1	.	0.5	.	.	.	.	
12	MANPSA	FIT	.	.	S	.	.	.	.	.	.	.	.	.	
12	MANPSA	FIT	.	1.0	P	20.0	.	.	.	.	.	.	.	.	
13	MANPSA	PROC	.	1.0	T	.	GS600	1	.	0.5	.	.	.	.	
13	MANPSA	PROC	.	.	S	.	.	.	.	.	.	.	.	.	
13	MANPSA	PROC	.	1.0	P	30.0	.	.	.	.	.	.	.	.	
14	MANPSA	LAUP	.	1.0	T	.	GS600	1	.	0.5	.	.	.	.	
14	MANPSA	LAUP	.	.	S	.	.	.	.	.	.	.	.	.	
14	MANPSA	LAUP	.	1.0	P	40.0	.	.	.	.	.	.	.	.	
15	MANPSA	BOND	.	.	T	.	.	.	.	.	.	.	.	.	
15	MANPSA	BOND	.	.	S	.	.	.	.	.	.	.	.	.	
15	MANPSA	BOND	.	1.0	P	80.0	.	.	.	.	.	.	.	.	

OPERATION PROFILE SAS

NAME BJB ALC WR DATE 4/24 RCC MANPSB SHEET 5 OF 7

ITEM CD PCN M5243K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
16	MANPSA	~~INSP~~ DBAG	.	.	T	.		.	.	.		.	.	.	
16	MANPSA	DBAG INSP	.	.	S	.		.	.	.		.	.	.	
16	MANPSA	DBAG ~~INSP~~	.	1.0	P	40.0		.	.	.		.	.	.	
17	MANPSA	PROC	.	.	T	.		.	.	.		.	.	.	
17	MANPSA	PROC	.	.	S	.		.	.	.		.	.	.	
17	MANPSA	PROC	.	1.0	P	30.0		.	.	.		.	.	.	
18	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
18	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
18	MANPSB	FAB	.	1.0	P	.	50359	1	.	1.5		.	.	.	
18	MANPSB	FAB	.	1.0	P	.	50889	1	.	1.5		.	.	.	
19	MANPDC	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
19	MANPDC	PROC	.	.	S	.		.	.	.		.	.	.	
19	MANPDC	PROC	.	1.0	P	36.0		.	.	.		.	.	.	

SAS 8:21 WEDNESDAY, APRIL 5, 1989 50

OPERATION PROFILE

NAME BB ALC WR DATE 4/24 RCC MANPSB SHEET 6 OF 7

ITEM CD PCN M5243K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
20	MANPSB	INSP	.	1.0	T	.	GS600	1	.	0.5	.	.	.	.	
20	MANPSB	INSP	.	.	S	.	.	.	.	.	.	.	.	.	
20	MANPSB	INSP	.	1.0	P	.	50359	1	.	0.3	.	.	.	.	
20	MANPSB	INSP	.	1.0	P	.	50889	1	.	0.3	.	.	.	.	
21	MANPDB	PROC	.	.	T	.	.	.	.	.	.	.	.	.	
21	MANPDB	PROC	.	.	S	.	Delete Now it is OP 08A	.	.	.	.	.	.	.	
21	MANPDB	PROC	.	.	P	.	.	.	.	.	.	.	.	.	
22	MANPSB	FAB	.	.	T	.	.	.	.	.	.	.	.	.	
22	MANPSB	FAB	.	.	S	.	Made part of OP, 002	.	.	.	.	.	.	.	
22	MANPSB	FAB	.	.	P	.	48687	1	.	40.0	.	.	.	.	
23	MANPSD		.	.	T	.	.	.	.	.	.	.	.	.	
23	MANPSD		.	.	S	.	Made part of OP, 003	.	.	.	.	.	.	.	

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OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 51

NAME BB ALC WR DATE 4/24 RCC MANPSB SHEET 7 OF 7

ITEM CD PCN M5243K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
~~23~~	~~MANPSD~~				P										

NAME BASH/AM

OPERATION PROFILE SAS

8:21 WEDNESDAY, APRIL 5, 1989 62

ITEM CD PCN M9829K ALC WR DATE 4/25 RCC MANPSB SHEET 1 OF 5

WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
1	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
1	MANPSB	FAB	.	1.0	P	.	50359	1	.	0.8		.	.	.	
2	MANPSB	CUT	.	.	T	.		.	.	.		.	.	.	
2	MANPSB	CUT	.	1.0	S	.	50359	.	.	0.2		.	.	.	
2	MANPSB	CUT	.	1.0	P	.	50359	1	.	0.8		.	.	.	
2	MANPSB	CUT	.	1.0	P	.	50889	1	.	0.8		.	.	.	
3	MANPSB	CUT	.	.	T	.		.	.	.		.	.	.	
3	MANPSB	CUT	.	1.0	S	.	50359	1	.	0.2	0794	1	.	0.2	
3	MANPSB	CUT	.	1.0	P	.	50359	1	.	0.8		.	.	.	
3	MANPSB	ROUT	.	1.0	P	.	50889	1	.	0.8	0794	1	.	0.3	
4	MANPSB	CIT	.	.	T	.		.	.	.		.	.	.	
4	MANPSB	CIT	.	1.0	S	.	50359	1	.	0.2	1242	1	.	0.2	

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OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 63

NAME PSB ALC WR DATE 4/25 RCC MANPSB SHEET 2 OF 5

ITEM CD PCN M8928K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
4	MANPSB	CIT	.	1.0	P	.	50359	1	.	6.0	1242	1	.	1.0	
4	MANPSB	CUT	.	1.0	P	.	50889	1	.	6.0	0794	1	.	0.5	
4	MANPSB	DRIL			P	.					0794	1	.	0.5	
5	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5					
5	MANPDA	PROC	.	.	S	.									
5	MANPDA	PROC	.	1.0	P	30.0									
6	MANPDB	PROC	.	1.0	T	.	GS600	1	.	0.5					
6	MANPDB	PROC	.	.	S	.									
6	MANPDB	PROC	.	1.0	P	50.0									
7	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5					
7	MANPSB	FAB	.	.	S	.									
7	MANPSB	FAB	.	1.0	P	.	50359	1	.	0.8	1242	1	.	0.5	

NAME PAB OPERATION PROFILE SAS 8:21 WEDNESDAY, APRIL 5, 1989 64

ITEM CD PCN M9929K ALC WR DATE 4/25 RCC MANPSB SHEET 3 OF 5

WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
7	MANPSB	FAB	.	1.0	P	.	50889	1	.	0.8		.	.	.	
8	MAQCMB	TEST	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
8	MAQCMB	TEST	.	.	S	.		.	.	.		.	.	.	
8	MAQCMB	TEST	.	1.0	P	120.0		.	.	.		.	.	.	
9	MANPSB	ASSY MOVE	.	.	T	.		.	.	.		.	.	.	
9	MANPSB	ASSY MOVE	.	.	S	.		.	.	.		.	.	.	
9	MANPSB	ASSY MOVE	.	1.0	P	.	50359	1	.	0.1		.	.	.	
9	MANPSB	ASSY MOVE	.	1.0	P	.	50889	1	.	0.1		.	.	.	
10	MANPSA	FIT	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
10	MANPSA	FIT	.	.	S	.		.	.	.		.	.	.	
10	MANPSA	FIT	.	1.0	P	20.0		.	.	.		.	.	.	
11	MANPSA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
11	MANPSA	PROC	.	.	S	.		.	.	.		.	.	.	

OPERATION PROFILE

NAME BB ALC WR DATE SAS 4/25 RCC MANPSB SHEET 4 OF 5

ITEM CD PCN M0929K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
11	MANPSA	PROC	.	1.0	P	30.0		.	.	.		.	.	.	
12	MANPSA	LAUP	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
12	MANPSA	LAUP	.	.	S	.		.	.	.		.	.	.	
12	MANPSA	LAUP	.	1.0	P	40.0		.	.	.		.	.	.	
13	MANPSA	BOND	.	.	T	.		.	.	.		.	.	.	
13	MANPSA	BOND	.	.	S	.		.	.	.		.	.	.	
13	MANPSA	BOND	.	1.0	P	80.0		.	.	.		.	.	.	
14	MANPSA	DBAG	.	.	T	.		.	.	.		.	.	.	
14	MANPSA	DBAG	.	.	S	.		.	.	.		.	.	.	
14	MANPSA	DBAG	.	1.0	P	40.0		.	.	.		.	.	.	
15	MANPSA	PROC	.	.	T	.		.	.	.		.	.	.	
15	MANPSA	PROC	.	.	S	.		.	.	.		.	.	.	

NAME BB OPERATION PROFILE SAS

ALC WR DATE 4/25 RCC MANPSB SHEET 5 OF 5

ITEM CD PCN M9929K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
15	MANPSA	PROC	.	1.0	P	30.0		.	.	.		.	.	.	
16	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
16	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
16	MANPSB	FAB	.	1.0	P	.	50359	1	.	1.5		.	.	.	
16	MANPSB	FAB	.	1.0	P	.	50889	1	.	1.5		.	.	.	
17	MANPDC	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
17	MANPDC	PROC	.	.	S	.		.	.	.		.	.	.	
17	MANPDC	PROC	.	1.0	P	36.0		.	.	.		.	.	.	
18	MANPSB	INSP	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
18	MANPSB	INSP	.	.	S	.		.	.	.		.	.	.	
18	MANPSB	INSP	.	1.0	P	.	50359	1	.	0.3		.	.	.	
18	MANPSB	INSP	.	1.0	P	.	50889	1	.	0.3		.	.	.	

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8:21 WEDNESDAY, APRIL 5, 1989 55

OPERATION PROFILE

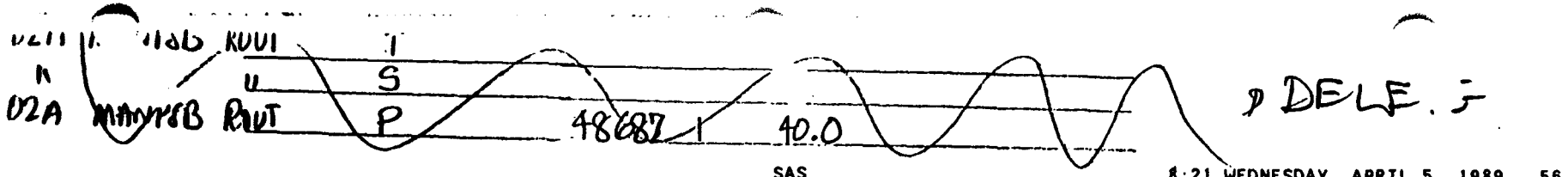
NAME Bob SH-1Arm ALC WR DATE 4/26 RCC MANPSB SHEET 1 OF 7

ITEM CD PCN M5743K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	FAB	.	.	T	.	.	.	.	.	.	.	.	.	
1	MANPSB	FAB	.	.	S	.	.	.	.	.	.	.	.	.	
1	MANPSB	FAB	.	.	P	.	46001	1	.	80.0	.	.	.	.	
2	MANPSB	FAB	.	.	T	.	.	.	.	.	.	.	.	.	
2	MANPSB	FAB	.	.	S	.	.	.	.	.	.	.	.	.	
2	MANPSB	FAB	.	.	P	.	48687	1	.	80.0	.	.	.	.	
3	MANPSD		.	.	T	.	GS600	1	.	0.5	.	.	.	.	
3	MANPSD		.	.	S	.	.	.	.	.	.	.	.	.	
3	MANPSD		.	.	P	60.0	.	.	.	.	.	.	.	.	
4	MANPSD		.	.	T	.	.	.	.	.	.	.	.	.	
4	MANPSD		.	.	S	.	.	.	.	.	.	.	.	.	
4	MANPSD		.	.	P	60.0	.	.	.	.	.	.	.	.	
5	MANPSB	CUT	.	1.0	T	.	GS600	1	.	0.5	.	.	.	.	LEAVE THIS IN

DELETE

1A MAINTENANCE PROG



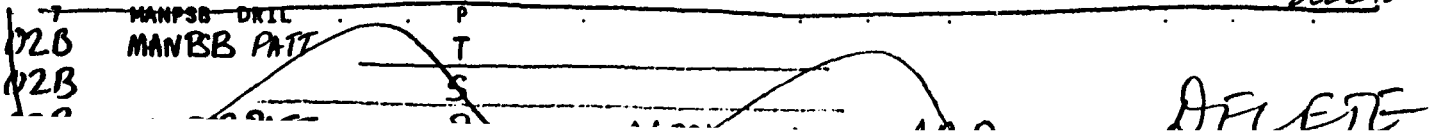
SAS 8:21 WEDNESDAY, APRIL 5, 1989 56

OPERATION PROFILE

NAME BB ALC WR DATE 4/25 RCC MANPSB SHEET 2 OF 7

ITEM CD PCN M5743K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
5	MANPSB	CUT	.	1.0	S	.	50359	1	.	1.0			.	.	
5	MANPSB	CUT	.	1.0	P	.	50359	1	.	0.8			.	.	
5	MANPSB	CUT	.	1.0	P	.	50889	1	.	0.8			.	.	
6	MANPSB	CUT	.	.	T	.			.	.			.	.	
6	MANPSB	CUT	.	1.0	S	.	50359	1	.	2.0	0794	1	.	2.0	
6	MANPSB	CUT	.	1.0	P	.	50359	1	.	0.8	0794	1	.	0.3	
6	MANPSB	CUT	.	1.0	P	.	50889	1	.	0.8			.	.	
7	MANPSB	CUT	.	.	T	.			.	.			.	.	
7	MANPSB	DUT	.	1.0	S	.	50359	1	.	0.2			.	.	
7	MANPSB	CUT	.	1.0	P	.	50359	1	.	6.0	1242	1	.	1.0	
7	MANPSB	CUT	.	1.0	P	.	50889	1	.	6.0	0794	1	.	0.5	
7	MANPSB	DRIL	.	.	P	.			.	.			.	.	DELETE



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23A MANPSD POUR P 50.0

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OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 57

NAME BB ALC WR DATE 4/25 RCC MANPSB SHEET 3 OF 7

ITEM CD PCN M5743K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
~~7~~	~~MANPSB~~	~~ROUT~~	.	.	~~P~~	.		.	.	.	~~0794~~	~~1~~	.	~~0.5~~	DELETE
8	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
8	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
8	MANPDA	PROC	.	1.0	P	40.0		.	.	.		.	.	.	
9	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
9	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
9	MANPSB	FAB	.	1.0	P	.	50359	1	.	1.0		.	.	.	
9	MANPSB	FAB	.	1.0	P	.	50889	1	.	1.0	1242	1	.	0.5	.
10	MAQCMB	TEST	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
10	MAQCMB	TEST	.	.	S	.		.	.	.		.	.	.	
10	MAQCMB	TEST	.	1.0	P	120.0		.	.	.		.	.	.	
11	MANPSB	~~MOVE~~ ASSY	.	.	T	.		.	.	.		.	.	.	
11	MANPSB	~~MOVE~~ ASSY	.	.	S	.		.	.	.		.	.	.	
23A	MANPDB	HEAT		1.0	T S		GS600	1		0.5					

NAME PJB

OPERATION PROFILE SAS

8:21 WEDNESDAY, APRIL 5, 1989 58

ALC WR DATE 4/25 RCC MANPSB SHEET 4 OF 7

ITEM CD PCN M5743K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
11	MANPSB	ASSY ~~MOVE~~		1.0	P		50359	1		0.1					
11	MANPSB	ASSY ~~MOVE~~		1.0	P		50889	1		0.1					
12	MANPSA	FIT		1.0	T		GS600	1		0.5					
12	MANPSA	FIT			S										
12	MANPSA	FIT		1.0	P	20.0									
13	MANPSA	PROC		1.0	T		GS600	1		0.5					
13	MANPSA	PROC			S										
13	MANPSA	PROC		1.0	P	30.0									
14	MANPSA	LAUP		1.0	T		GS600	1		0.5					
14	MANPSA	LAUP			S										
14	MANPSA	LAUP		1.0	P	40.0									
15	MANPSA	BOND			T										

OPERATION PROFILE

NAME BB ALC WR DATE 4/25 RCC MANPSB SHEET 5 OF 7

ITEM CD PCN M5743K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
15	MANPSA	BOND	.	.	S	.		.	.	.		.	.	.	
15	MANPSA	BOND	.	1.0	P	80.0		.	.	.		.	.	.	
16	MANPSA	~~INSP~~ DBAG	.	.	T	.		.	.	.		.	.	.	
16	MANPSA	~~INSP~~ DBAG	.	.	S	.		.	.	.		.	.	.	
16	MANPSA	~~INSP~~ DBAG	.	1.0	P	40.0		.	.	.		.	.	.	
17	MANPSA	PROC	.	.	T	.		.	.	.		.	.	.	
17	MANPSA	PROC	.	.	S	.		.	.	.		.	.	.	
17	MANPSA	PROC	.	1.0	P	30.0		.	.	.		.	.	.	
18	MANPSB	FAB	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
18	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
18	MANPSB	FAB	.	1.0	P	.	50359	1	.	1.5		.	.	.	
18	MANPSB	FAB	.	1.0	P	.	50889	1	.	1.5		.	.	.	
19	MANPDC	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	

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8:21 WEDNESDAY, APRIL 5, 1989 60

OPERATION PROFILE

NAME BB ALC WR DATE 4/25 RCC MANPSB SHEET 6 OF 7

ITEM CD PCN M5743K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
19	MANPDC	PROC			S										
19	MANPDC	PROC		1.0	P	36.0									
20	MANPSB	INSP		1.0	T		GS600	1		0.5					
20	MANPSB	INSP			S										
20	MANPSB	INSP		1.0	P		50359	1		0.3					
20	MANPSB	INSP		1.0	P		50889	1		0.3					
21	MANENT				T										
21	MANENT				S										MADE AS OP 01A
21	MANENT				P										
22	MANPSB	FAB			T										
22	MANPSB	FAB			S										MADE AS OP 02A
22	MANPSB	FAB			P		48687	1		40.0					

OPERATION PROFILE

NAME BB ALC WR DATE 4/25 RCC MANPSB SHEET 7 OF 7

ITEM CD PCN M5743K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
23	MANPDB	PROC			T										
23	MANPDB	PROC			S										MADE AS OP. 08A
23	MANPDB	PROC			P										
24	MANPSB	FAB			T										
24	MANPSB	FAB													MADE AS OP. 02B
24	MANPSB	FAB			P		48107	1		40.0					
25	MANPSD				T										
25	MANPSD				S										MADE AS OP. 03A
25	MANPSD				P										

MANPOWER PROFILE

NAME: BASHYAM ALC: WR DATE: 5/8 RCC: MANPSB SHEET 1 OF 2

SK CODE	DESCRIPTN	QTR	QUANTITY AVAILABLE WORK WEEK 1	2	3	WEEK END 1	2	3	HOLIDAY 1	2	3	AVAILABLE HRS (PER SHIFT) WORK WEEK 1	2	3	WEEK END 1	2	3	HOLIDAY 1	2	3	ALTERNATE SKILL CD/LVL	NOTES
46001	TEM-LAY	1										5.5									50359	
46001	"	4	5									5.3									50359	
46005	MET. WKR	1										5.5	5.3								50889	
46005	"	4	22	2								5.3	5.3								50889	
48107	PAT. MKR	1										5.5									—	
48107	"	4	3									5.3									—	
48687	BLK. MKR	1										5.5									—	
48687	"	4	3									5.3									—	
50359	SR. MECH	1										5.5	5.3								46005	

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*MANPOWER PROFILE 8:18 WEDNESDAY, APRIL 5, 1989 2

NAME: Bob ALC: WR DATE: 5/8 RCC: MANPSB SHEET 2 OF 2

SK CODE	DESCRIPTN	QTR	QUANTITY AVAILABLE WORK WEEK 1	2	3	QUANTITY AVAILABLE WEEK END 1	2	3	QUANTITY AVAILABLE HOLIDAY 1	2	3	AVAILABLE HRS (PER SHIFT) WORK WEEK 1	2	3	AVAILABLE HRS (PER SHIFT) WEEK END 1	2	3	AVAILABLE HRS (PER SHIFT) HOLIDAY 1	2	3	ALTERNATE SKILL CD/LVL	NOTES
✓ 50359	SR. MECH	4	28	2								5.3	5.3								46005	
✓ 50889	MECH. HLP	1										5.5									9M075	
✓ 50889	"	4	4									5.3									9M075	
✓ 9M075	TRAINEE	1										5.5									—	
✓ 9M075	"	4	2									5.3									—	
✓ 00001	NC PROG.	4	1	—																	—	PROGRAMER
✓ GS600	MET. HDR	4	1																			~~PART~~ HANDI (WG-5)

EQUIPMENT ROUTE

NAME L SHYAM ALC WR-ALC DATE 4/ 189 RCC MANP&B SHEET 1 OF 2

EQUIPMENT CODE	EQUIPMENT TYPE/DESCRIPTION	QUANTITY PER SHIFT 1st	2nd	3d	DOWNTIME PREVENTIVE MAINT. FREQ.	SHIFT	DOWN TIME	UNSCHEDULED BREAKDOWN REPAIR TIME MDBF	MTTR	PERCENT USED FOR OTHER RCCs (e.g. TIME NOT AVAILABLE)	ENVELOP UNITS MIN / MAX	ALTERNATE EQUIPMENT CODE	SOURCE
0896	IU-PUNCH WIEDEMANN	1	1	1									
0913	NIBBLER	1	1	1									
2512	BAND SAW	1	1	1									
2513	BAND SAW	1	1	1									
1207	DD-ALL	1	1	1									
0015	FURNACE	1	1	1									
0783	HYD PRESS 200 TON	1	1	1									
0301	VERSON 150 TON	1	1	1									
J984	ROTEX 80 TON	1	1	1									
2530	CERINI 80 TON	1	1	1									
0798	SHEAR	1	1	1									
0910	BHEAL 12'	1	1	1									

LSC-200948

EQUIPMENT TABLE

NAME I ISHAM ALC WRALC DATE 4 6 RCC MMNPSB SHEET 2 OF 2

EQUIPMENT CODE	EQUIPMENT TYPE/DESCRIPTION	QUANTITY PER SHIFT			DOWNTIME					PERCENT USED FOR OTHER RCCs (e.g. TIME NOT AVAILABLE)	ENVELOP UNITS	ALTERNATE EQUIPMENT CODE	SOURCE
					PREVENTIVE MAINT.			UNSCHEDULED BREAKDOWN REPAIR TIME					
		1st	2nd	3rd	FREQ.	SHIFT	DOWN TIME	MTBF	MTTR		MIN / MAX		
√ 0483	SHEAR	1	1	1									
√ 0331	HYD PRESS	1	1	1									
√ 0787	MULTI PRESS	1	1	1									
√ 0844	ROTEX	1	1	1									
√ 0845	ROTEX	1	1	1									
√ 1480	MURDOCK HOT BED PRESS	1	1	1									
√ NEW1	MOHAWK HYD. PRESS	1	1	1									

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EQUIPMENT PROFILE

NAME: R&B ALC: WR DATE: 5/5 RCC: MANPSB SHEET 1 OF 2

EQUIP CODE	EQUIP DESCR	QUANT S1	QUANT S2	QUANT S3	AVAIL PREV FRQ	AVAIL MAINT S	AVAIL MAINT TIME	UNSCHED MTBF	UNSCHED MTTR	% NOT AVAIL	FOOTPRNT MIN	FOOTPRNT MAX	ALT EQP	SOURCE	NOTES
0299	WEED	1	\	.	90	1	1.0	60	8.0	~~90~~ 10	———	———	———	MIXON	
0299	"	1	.	.	60	1	1.0	60	8.0	~~90~~ 10	———	———	———	"	
0794	MET. RUTR	1	.	.	90	1	1.0	360	10.0	~~90~~ 10	———	———	———	"	
0794	"	1	.	.	60	1	1.0	360	10.0	~~90~~ 10	———	———	———	"	
0795	ST. WRAP	1	.	.	60	1	1.0	30	10.0	~~90~~ 10	———	———	———	"	
0795	"	1	.	.	90	1	1.0	30	10.0	~~90~~ 10	———	———	———	"	
0796	ST. WRAP	1	.	.	90	1	1.0	15	7.0	~~90~~ 10	———	———	———	"	
0796	"	1	.	.	60	1	1.0	15	7.0	~~90~~ 10	———	———	———	"	
1210	HY. FORM	1	.	.	90	1	1.0	180	10.0	~~90~~ 10	———	———	———	"	

EQUIPMENT PROFILE

NAME: _____ ALC: WR DATE: _____ RCC: MANPSB SHEET 2 OF 2

EQUIP CODE	EQUIP DESCR	QUANT S1	QUANT S2	QUANT S3	AVAIL FRQ	PREV MAINT S	PREV MAINT TIME	UNSCHED MTBF	UNSCHED MTTR	% NOT AVAIL	FOOTPRNT MIN	FOOTPRNT MAX	ALT EQP	SOURCE	NOTES
1210	HY FORM	1	.	.	60	1	1.0	180	10.0	~~90~~ 10	———	———		MIXON	
1242	250 PRESS	1	.	.	90	1	1.0	22	12.0	0	———	———			
1242	77	1	.	.	60	1	1.0	22	12.0	0	———	———			

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8:22 WEDNESDAY, APRIL 5, 1989 1

WORKLOAD PROFILE

NAME BASHYAM ALC WR DATE 5/4 RCC MANPSB SHEET 1 OF 2

ITEM CODE	AIRCRAFT MODEL	WCD	WKL TYP	FLOAT STOCK	INDUCTIONS PER QTR Q1	Q2	Q3	Q4	NO OF FPS	MAX WIP	STD HRS	NOTES
PCN M0218K	F-15	—	7	—	100	110	110	100	—	20	—	
PCN M0219K	F-15	—	7	—	100	110	110	100	—	20	—	
PCN M0220K	F-15	—	7	—	100	110	110	100	—	20	—	
PCN M0221K	F-15	—	7	—	100	110	110	100	—	20	—	
PCN M0229K	F-15	—	7	—	100	110	110	100	—	20	—	
PCN M1495K	C-141	—	7	—	65	65	65	63	—	15	—	
PCN M1864K	C-141	—	7	.	700	780	726	736	—	50	—	
PCN M1866K	C-141	—	7	.	700	780	726	736	—	50	—	
PCN M3651K	C-141		7	.	200	300	291	290	—	50	—	
PCN M3865K	C-141		7	.	200	300	291	290	—	50	—	
PCN M4764K	F-15		7	.	15	15	14	14	—	10	—	
PCN M5243K	C-130	—	7	.	200	300	303	268	—	50	—	
PCN M5351K	C-141	—	7	.	200	300	291	290	—	50	—	

WORKLOAD PROFILE

NAME BB ALC WR DATE 5/4 RCC MANPSB SHEET 2 OF 2

ITEM CODE	AIRCRAFT MODEL	WCD	WKL TYP	FLOAT STOCK	INDUCTIONS PER QTR Q1	Q2	Q3	Q4	NO OF FPS	MAX WIP	STD HRS	NOTES
PCN M5743K	C-130		7		200	300	303	268	—	50	—	
PCN M9929K	C-130	—	7		200	300	303	268	—	50	—	

DATASET: I7S150ED.ALC.WRMANPSB.WORKLD

DATE: 89/03/29
TIME: 07:22
PAGE: 1

START COL ----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8

	PART	WCD	INV-	T	Q1-	Q2-	Q3-	Q4-
1	M5243K	M5243K		7	0	0		921070
1	M9929K	M9929K		7	0	0		01071
1	M5743K	M5743K		7	0	0		921070
1	M0221K	M0221K		7	0	0	0	405
1	M0220K	M0220K		7	0	0	0	405
1	M0219K	M0219K		7	0	0	0	405
1	M0229K	M0229K		7	0	0	100	405
1	M0218K	M0218K		7	0	0	0	405
1	M1864K	M1864K		7	0	0		02941
1	M1866K	M1866K		7	0	0		02942
1	M1495K	M1495K		7	0	241	0	12
1	M4764K	M4764K		7	200	0	0	58
1	M3865K	M3865K		7	50	0		01163
1	M5351K	M5351K		7		5		01163
1	M3651K	M3651K		7	1	0		01163

LOOK AT MAKED UP ONE BOB

PARALLEL PROCESS PROFILE

NAME BASHYAM ALC WR-ALC DATE 4/22/89 NCC MANPSB SHEET 1 OF 2

ITEM NUMBER	PARENT WCD	PARENT WCD DATE	BEGINNING OPERATION NUMBER	ENDING OPERATION NUMBER	CHILD PROCESS INFORMATION		
					ITEM NUMBER	CHILD WCD	CHILD WCD DATE
✓ PCN NSN P/N M1495K	—	—	001	007	PCN NSN P/N M1495K/P1	—	—
✓ PCN NSN P/N M1864K	—	—	008	011	PCN NSN P/N M1864K/P1	—	—
✓ PCN NSN P/N M1866K	—	—	008	011	PCN NSN P/N M1866K/P1	—	—
✓ PCN NSN P/N M3651K	—	—	007	010	PCN NSN P/N M3651K/P1	—	—
✓ PCN NSN P/N M3865K	—	—	006	009	PCN NSN P/N M3865K/P1	—	—
✓ PCN NSN P/N M5351K	—	—	006	008	PCN NSN P/N M3865K/P1	—	—
✓ PCN NSN P/N M0218K	—	—	013	018	PCN NSN P/N M0218K/P1	—	—
✓ PCN NSN P/N M0219K	—	—	013	018	PCN NSN P/N M0219K/P1	—	—
✓ PCN NSN P/N M0220K	—	—	013	018	PCN NSN P/N M0220K/P1	—	—
✓ PCN NSN P/N M0221K	—	—	014	019	PCN NSN P/N M0221K/P1	—	—
✓ PCN NSN P/N M0229K	—	—	013	018	PCN NSN P/N M0229K/P1	—	—
✓ PCN NSN P/N M0476K	—	—	007	011	PCN NSN P/N M0476K/P1	—	—

LSC-20103A

PARALLEL PROCESS PROFILE

NAME BASHYAM ALC WR-ALC DATE 4/24 RCC MANPSB SHEET 2 OF 2

ITEM NUMBER	PARENT WCD	PARENT WCD DATE	BEGINNING OPERATION NUMBER	ENDING OPERATION NUMBER	CHILD PROCESS INFORMATION		
					ITEM NUMBER	CHILD WCD	CHILD WCD DATE
PCN NSN P/N M5243K	—	—	010	020	PCN NSN P/N M5243K/P1	—	—
PCN NSN P/N M5743K	—	—	010	020	PCN NSN P/N M5743K/P1	—	—
PCN NSN P/N M9729K	—	—	008	018	PCN NSN P/N M9729K/P1	—	—
PCN NSN P/N					PCN NSN P/N		
PCN NSN P/N					PCN NSN P/N		
PCN NSN P/N					PCN NSN P/N		
PCN NSN P/N					PCN NSN P/N		
PCN NSN P/N					PCN NSN P/N		
PCN NSN P/N					PCN NSN P/N		
PCN NSN P/N					PCN NSN P/N		
PCN NSN P/N					PCN NSN P/N		
PCN NSN P/N					PCN NSN P/N		

LSC-20103A

OPERATION PROFILE

NAME BOOSHYAM ALC WR-ALC DATE 4/24 RCC MANPSB SHEET 1 OF 1

PGN
NSN
P/N M04764K WCD WCD DATE

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
IN	MMAN PSB	REC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359			0.5					
9999	MMAN PSB	SLL	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359			0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

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OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 42

NAME BASHYAM ALC WR DATE 4/24 RCC MANPSB SHEET 1 OF 3

ITEM CD PCN M4764K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	REC		1.0	T		GS600	1		0.5					
1	MANPSB	REC			S										
1	MANPSB	REC		1.0	P		50359	1		0.8					
2	MANPSB	CUT			T										
2	MANPSB	CUT			S		50359	1		0.5	0795	1		0.5	
~~2~~	~~MANPSB~~	~~CUT~~			~~P~~		~~50359~~	~~1~~		~~3.0~~					DELETE
2	MANPSB	FORM			P		50359	1		2.5	0795	1		2.5 ~~0.5~~	
3	MANPDA			1.0	T		GS600	1		0.5					
3	MANPDA				S										
3	MANPDA			1.0	P	40.0									
4	MANPDB			1.0	T		GS600	1		0.5					
4	MANPDB				S										
4	MANPDB			1.0	P	50.0									

OPERATION PROFILE

NAME BB ALC WR DATE 4/24 RCC MANPSB SHEET 2 OF 3

ITEM CD PCN M4784K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
5	MANPSB	FAB		1.0	T		GS600	1		0.5					
5	MANPSB	FAB			S										
5	MANPSB	FAB		1.0	P		50359	1		0.3	0795	1		0.1	
6	MANPDA	PROC		1.0	T		GS600	1		0.5					
6	MANPDA	PROC			S										
6	MANPDA	PROC		1.0	P	30.0									
7	MANPDB			1.0	T		GS600	1		0.5					
7	MANPDB				S										
7	MANPDB			1.0	P	40.0									
8	MAQCMB	TEST		1.0	T		GS600	1		0.5					
8	MAQCMB	TEST			S										
8	MAQCMB	TEST		1.0	P	120.0									

NAME BJB

OPERATION PROFILE SAS

8:21 WEDNESDAY, APRIL 5, 1989 44

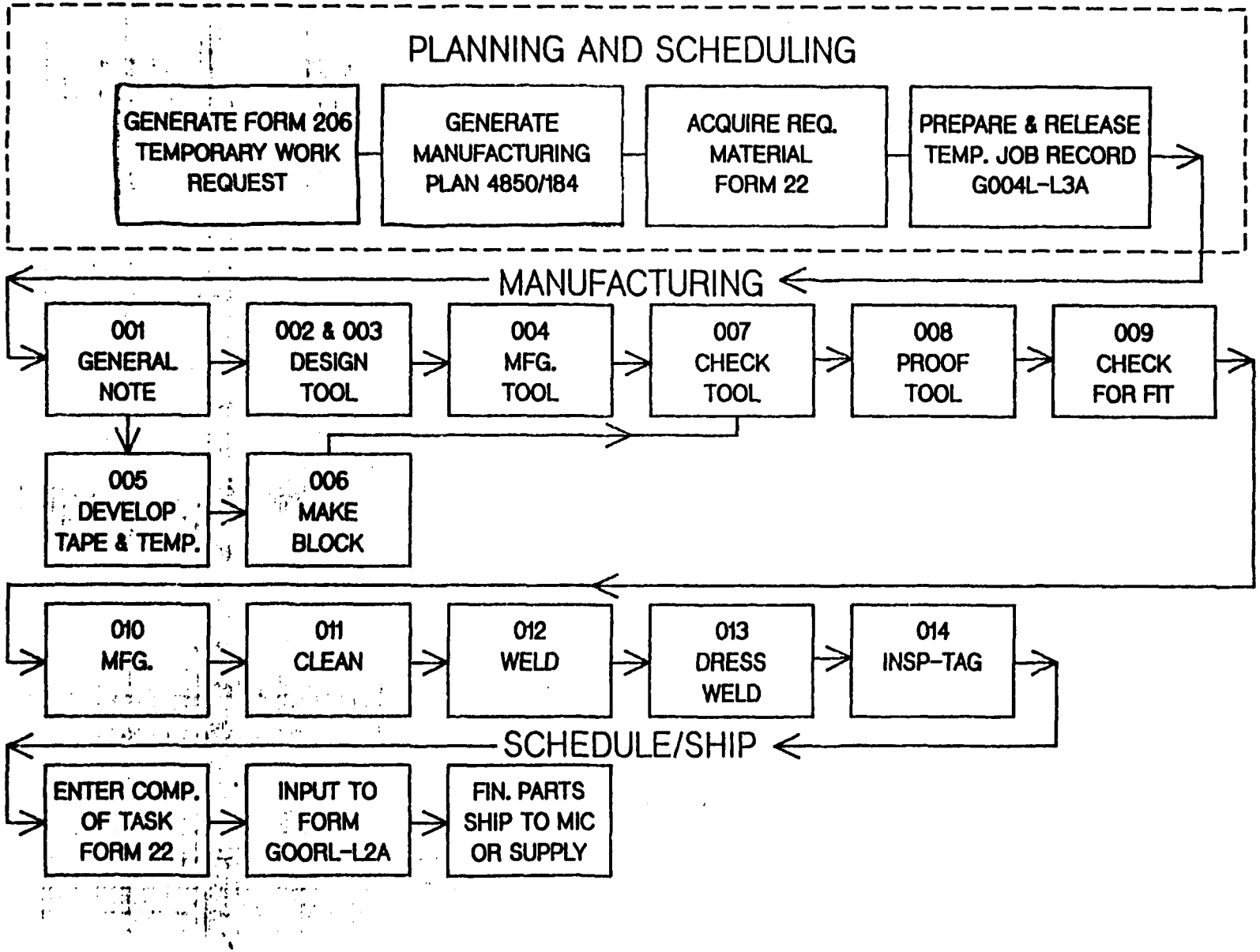
ALC WR DATE 4/24 RCC MANPSB SHEET 3 OF 3

ITEM CD PCN M4784K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
9	MANPDA	PROC		1.0	T		GS600	1		0.5					
9	MANPDA	PROC			S										
9	MANPDA	PROC		1.0	P	100.0									
10	MANPDC	PROC		1.0	T		GS600	1		0.5					
10	MANPDC	PROC			S										
10	MANPDC	PROC		1.0	P	80.0									
11	MANPSB	INSP		1.0	T		GS600	1		0.5					
11	MANPSB	INSP			S										
11	MANPSB	INSP		1.0	P		50359	1		1.5					

RCC: MANPSB PCN: M1495K NOUN: C141 FRAME ASSY/NOSE RING
WR-ALC

PROCESS FLOW CHART



OPERATION PROFILE

NAME BASHYAM ALC WR-ALC DATE 4/22/89 RCC MANP&B SHEET 1 OF 1

PCN / MSN / FIN M1495K WCD — WCD DATE —

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
IN	MAN P&B	REC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
49999	MAN P&B	SELL	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

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OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 26

NAME BASHYAM ALC WR DATE 4/22/89 RCC MANPSB SHEET 1 OF 4

ITEM CD PCN M1495K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	NOTE	.	1.0	T	.		.	.	.		.	.	.	~~GENERAL NOTE ABOUT THIS WORK ORDER~~
1	MANPSB	NOTE	.	.	S	.		.	.	.		.	.	.	
1	MANPSB	NOTE	.	.	P	.		.	.	.		.	.	.	
~~2~~	~~MANENT~~	~~DESI~~	~~.~~	~~.~~	~~T~~	~~.~~		~~.~~	~~.~~	~~.~~		~~.~~	~~.~~	~~.~~	
2	~~MANENT~~	~~DESI~~	~~.~~	~~.~~	S	.		.	.	.		.	.	.	
2	~~MANENT~~	~~DESI~~	~~.~~	~~.~~	P	120.0		.	.	.		.	.	.	
~~3~~	~~MANENT~~	~~DESI~~	~~.~~	~~.~~	~~T~~	~~.~~		~~.~~	~~.~~	~~.~~		~~.~~	~~.~~	~~.~~	
3	~~MANENT~~	~~DESI~~	~~.~~	~~.~~	S	.		.	.	.		.	.	.	
3	~~MANENT~~	~~DESI~~	~~.~~	~~.~~	P	80.0		.	.	.		.	.	.	
4	~~MANPMD~~	~~.~~	~~.~~	~~.~~	~~T~~	~~.~~		~~.~~	~~.~~	~~.~~		~~.~~	~~.~~	~~.~~	
4	~~MANPMD~~	~~.~~	~~.~~	~~.~~	S	.		.	.	.		.	.	.	
4	~~MANPMD~~	~~.~~	~~.~~	~~.~~	P	400.0		.	.	.		.	.	.	
~~5~~	~~MANPSB~~	~~FAB~~	~~.~~	~~.~~	~~T~~	~~.~~		~~.~~	~~.~~	~~.~~		~~.~~	~~.~~	~~.~~	

Delete op: 2, 3, 4, 5, 6, 7 & 8

OPERATION PROFILE

NAME BASH/AM ALC WR DATE 4/22/89 RCC MANPSB SHEET 2 OF 4

ITEM CD PCN M1495K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
5	MANPSB	FAB			S										
5	MANPSB	FAB			P		46001	1		8.0					
5	MANPSB	FAB			P		50359	1		20.0	0299	1		4.0	
5	MANPSB	FAB			P		00001	1		72.0					
6	MANPSB	FAB			T										
6	MANPSB	FAB			S										
6	MANPSB	FAB			P		48687	1		130.0					
7	MANPSB	FAB		1.0	T										
7	MANPSB	FAB		1.0	S		50359	1		2.5	1242	1		2.5	
7	MANPSB	FAB		1.0	P		50359	1		9.5 12.0	1242	1		2.0	
8	MANPSB	INSP			T										
8	MANPSB	INSP			S										
8	MANPSB	INSP		1.0	P		48687	1		2.0 12.0					

OPERATION PROFILE

NAME BASH/AM ALC WR DATE 4/22/89 RCC MANPSB SHEET 3 OF 4

ITEM CD PCN M1495K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
9	MANPSB	NOTE	.	1.0	T	.	GS600	1.0	.	0.5		.	.	.	
9	MANPSB	NOTE	.	.	S	.		.	.	.		.	.	.	
9	MANPSB	NOTE	.	1.0	P	.	50359	1	.	2.0	1242	1	.	2.0	
10	MANPSB	CUT	.	.	T	—	.		.	.		.	.	.	
10	MANPSB	CUT	.	.	S	—	.		.	.		.	.	.	
10	MANPSB	CUT	.	1.0	P	.	50359	~~1~~	.	2.0 ~~5.0~~		.	.	.	
10	MANPSB	FAB	.	1.0	P	.	46005	1	.	2.0 ~~5.0~~	0299	1	.	0.3	
10	MANPSB	FORM	.	1.0	P	.	50359	1	.	1.0	1242	1	.	0.3	
11	MANPDA	PROC	.	1.0	T	.	GS600	1	.	1.0		.	.	.	
11	MANPDA	PROC	.	.	S	.		.	.	.		.	.	.	
11	MANPDA	PROC	.	1.0	P	48.0		.	.	.		.	.	.	
12	MANPDB	WELD	.	1.0	T	.	GS600	1	.	2.0		.	.	.	
12	MANPDB	WELD	.	.	S	.		.	.	.		.	.	.	

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OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 29

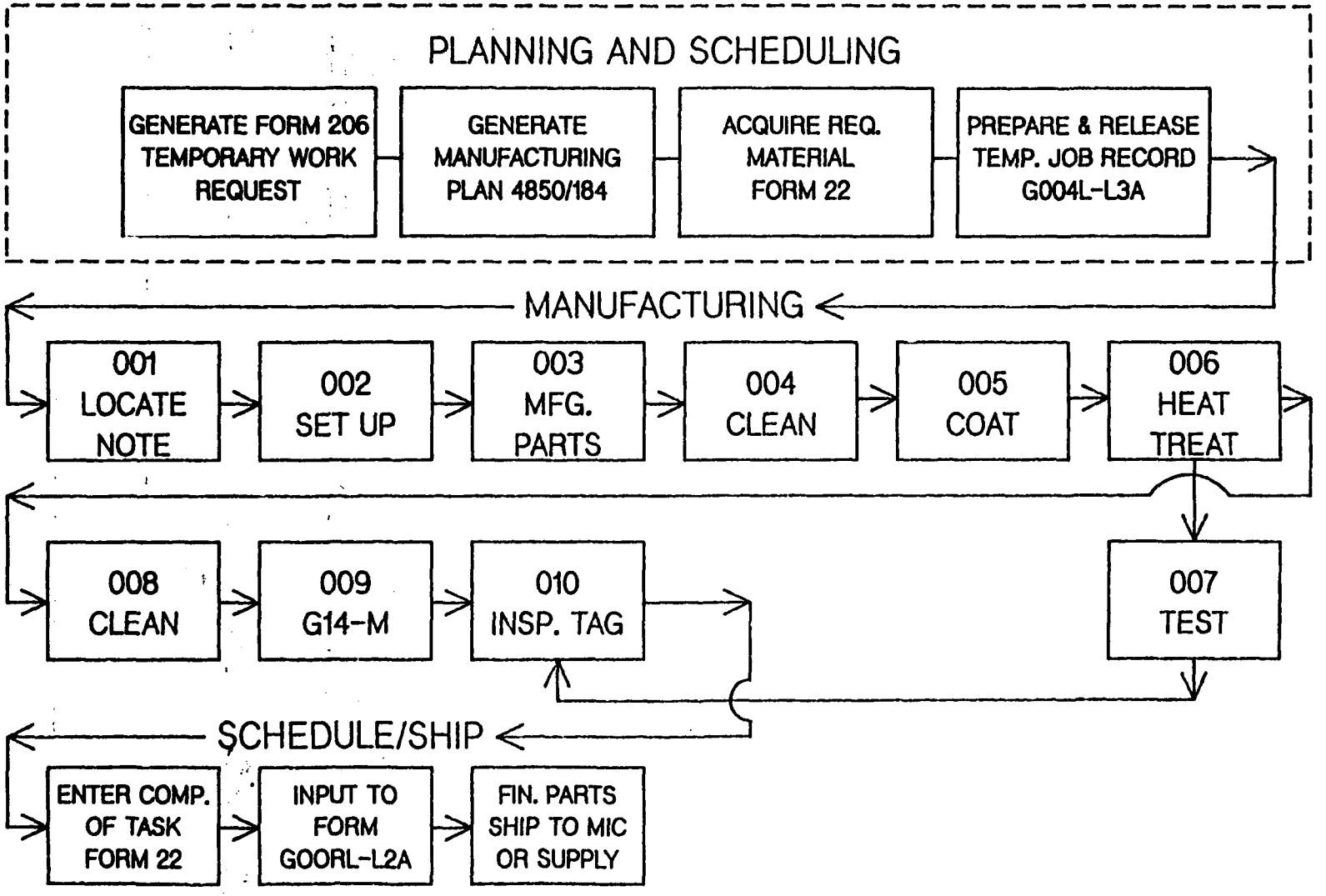
NAME BASHYAM ALC WR DATE 4/22/89 RCC MANPSB SHEET 4 OF 4

ITEM CD PCN M1495K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
12	MANPDB	WELD	.	1.0	P	120.0		.	.	.		.	.	.	
13	MANPSB	FAB	.	1.0	T	.	GS600	1	.	2.0		.	.	.	
13	MANPSB	FAB	.	.	S	.		.	.	.		.	.	.	
13	MANPSB	FAB	.	1.0	P	.	50359	1	.	1.0		.	.	.	
13	MANPSB	FAB	.	.	P	.	46005	1	.	1.0		.	.	.	
14	MANPSB	INSP	.	.	T	.		.	.	.		.	.	.	
14	MANPSB	INSP	.	.	S	.		.	.	.		.	.	.	
14	MANPSB	INSP	.	1.0	P	.	50359	1	.	0.1 ~~0.0~~		.	.	.	
14	MANPSB	INSP	.	1.0	P	.	46005	1	.	0.1 ~~0.0~~		.	.	.	

RCC: MANPSB PCN: M3865K, M5351K, M3651K NOUN: PAN ANGLE
WR-ALC

PROCESS FLOW CHART



OPERATION PROFILE

NAME BB BOBBIN-MC WRALL DATE 4/22 RCC MANPSB SHEET 1 OF 1

PCN
NSN
PN M5351K WCD WCD DATE

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
X IN	MAN PBB	REC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
9999	MAN PBB	SELL	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

LSC-200020

OPERATION PROFILE

NAME BASHYAM ALC WR ALC DATE 4/22 RCC MAN88B SHEET 1 OF 1

PCN
NSN
PN M3865K WCD — WCD DATE —

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
X 1W	MAN P8B	R&C	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
✓ 99M	MAN P8B	SELL	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

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OPERATION PROFILE

NAME BASHYAM ALC WR ALC DATE 4/22 RCC MANPBB SHEET 1 OF 1

PCN
NSN
P/N M3651K WCD — WCD DATE —

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
X IN	MANN PBB	REC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
√ 9999	MANN PBB	SELL	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

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8:21 WEDNESDAY, APRIL 5, 1989 39

OPERATION PROFILE

NAME BOBSHYAM ALC WR DATE 4/22 RCC MANPSB SHEET 1 OF 3

ITEM CD PCN M3885K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	REC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
1	MANPSB	REC	.	.	S	.		.	.	.		.	.	.	
1	MANPSB	REC	.	1.0	P	.	50359	1	.	0.8		.	.	.	
2	MANPSB	SAW	.	.	T	.		.	.	.		.	.	.	
2	MANPSB	SAW	.	.	S	.		.	.	.		.	.	.	
2	MANPSB	SAW	.	1.0	P	.	50359	1	.	~~1.3~~ 0.7	1210	1	.	0.2	
2	MANPSB	FORM	.	1.0	P	.	46005	1	.	~~1.3~~ 0.7	1210	1	.	0.2	
3	MANPDA		.	1.0	T	.	GS600	1	.	0.5		.	.	.	
3	MANPDA		.	.	S	.		.	.	.		.	.	.	
3	MANPDA		.	1.0	P	40.0		.	.	.		.	.	.	
4	MANPDC	PROC	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
4	MANPDC	PROC	.	.	S	.		.	.	.		.	.	.	
4	MANPDC	PROC	.	1.0	P	36.0		.	.	.		.	.	.	

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8:21 WEDNESDAY, APRIL 5, 1989 40

OPERATION PROFILE

NAME BBB ALC WR DATE 4/22 RCC MANPSB SHEET 2 OF 3

ITEM CD PCN M3885K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
5	MANPDB	PROC	.	1.0	T	.	GS600	1	.	0.5					
5	MANPDB	PROC	.	.	S	.									
5	MANPDB	PROC	.	1.0	P	50.0									
6	MAQCMB	TEST	.	1.0	T	.	GS600	1	.	0.5					
6	MAQCMB	TEST	.	.	S	.									
6	MAQCMB	TEST	.	1.0	P	100.0									
7	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5					
7	MANPDA	PROC	.	.	S	.									
7	MANPDA	PROC	.	1.0	P	40.0									
8	MANPDA	PROC	.	1.0	T	.	GS600	1	.	0.5					
8	MANPDA	PROC	.	.	S	.									
8	MANPDA	PROC	.	1.0	P	48.0									

SAS

8:21 WEDNESDAY, APRIL 5, 1989 41

OPERATION PROFILE

NAME BB ALC WR DATE 4/22 RCC MANPSB SHEET 3 OF 3

ITEM CD PCN M3865K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
9	MANPSB	INSP	.	1.0	T	.	GS600	1	.	0.5		.	.	.	
9	MANPSB	INSP	.	.	S	.		.	.	.		.	.	.	
9	MANPSB	INSP	.	1.0	P	.	50359	1	.	0.7 1.5		.	.	.	
9	MANPSB	INSP	.	1.0	P	.	46005	1	.	0.7 1.5		.	.	.	

SAS

OPERATION PROFILE

8:21 WEDNESDAY, APRIL 5, 1989 52

NAME BASHYAM ALC WR DATE 4/22 RCC MANPSB SHEET 1 OF 3

ITEM CD PCN M5351K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	REC		1.0	T		GS600	1		0.5					
1	MANPSB	REC			S										
1	MANPSB	REC		1.0	P		50359	1		0.5					
2	MANPSB	SAW			T										
2	MANPSB	SAW		1.0	S		50359	1		4.0	1210	1		4.0	
2	MANPSB	SAW		1.0	P		50359	1		1.3	1210	1		1.0	
2	MANPSB	SAW		1.0	P		46005	1		1.3	1210	1		0.2	
3	MANPDA			1.0	T		GS600	1		0.5					
3	MANPDA				S										
3	MANPDA			1.0	P	48.0									
4	MANPDC	PROC		1.0	T		GS600	1		0.5					
4	MANPDC	PROC			S										
4	MANPDC	PROC		1.0	P	40.0									

SAS

OPERATION PROFILE

NAME BB ALC WR DATE 4/22 RCC MANPSB SHEET 2 OF 3

ITEM CD PCN M5351K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
5	MANPDB	PROC		1.0	T		GS600	1		0.5					
5	MANPDB	PROC			S										
5	MANPDB	PROC		1.0	P	50.0									
6	MAQCMB	TEST		1.0	T		GS600	1		0.5					
6	MAQCMB	TEST			S										
6	MAQCMB	TEST		1.0	P	120.0									
7	MANPDA	PROC		1.0	T		GS600	1		0.5					
7	MANPDA	PROC			S										
7	MANPDA	PROC		1.0	P	40.0									
8	MANPSB	INSP		1.0	T		GS600	1		0.5					
8	MANPSB	INSP			S										
8	MANPSB	INSP		1.0	P		50359	1		0.5					

NAME BB OPERATION PROFILE SAS 8:21 WEDNESDAY, APRIL 5, 1989 54

ALC WR DATE 4/22 RCC MANPSB SHEET 3 OF 3

ITEM CD PCN M5351K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
8	MANPSB	INSP	.	1.0	P	.	46005	1	.	0.5					
~~9~~	MANPSB	FAB			T										
~~9~~	MANPSB	FAB			S										
~~9~~	MANPSB	FAB			P		50359	1		4.0	1210	1		4.0	
~~10~~					T										
~~10~~					S										
~~10~~					P										

DELETE

SAS 8:21 WEDNESDAY, APRIL 5, 1989 36

OPERATION PROFILE

NAME BASHYAM ALC WR DATE 4/22/89 RCC MANPSB SHEET 1 OF 3

ITEM CD PCN M3651K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
1	MANPSB	REC		1.0	T		GS600	1		1.0					
1	MANPSB	REC			S										
1	MANPSB	REC		1.0	P		50359	1		0.7					
2	MANPSB	FAB			T										
2	MANPSB	FAB		1.0	S		50359	1		2.0	1210	1		2.0	
2	MANPSB	FAB		1.0	P		50359	1		~~1.0~~ 1.0	1210	1		~~1.0~~ 1.0	
2	MANPSB	FAB		1.0	P		46005	1		~~1.0~~ 1.0	1210	1		~~1.0~~ 1.0	
3	MANPSB	CUT			T										
3	MANPSB	CUT			S										
3	MANPSB	CUT		1.0	P		50359	1		1.5	1210	1		0.2	
3	MANPSB	FORM		1.0	P		46005	1		1.5	1210	1		0.2	
4	MANPDA	PROC		1.0	T		GS600	1		0.5					
4	MANPDA	PROC			S										

OPERATION PROFILE

NAME BASH/AM ALC WR DATE 4/22 RCC MANPSB SHEET 2 OF 3

ITEM CD PCN M3651K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
4	MANPDA	PROC		1.0	P	48.0									
5	MANPDC	PROC		1.0	T		GS600	1		0.5					
5	MANPDC	PROC			S										
5	MANPDC	PROC		1.0	P	24.0									
6	MANPDB	PROC		1.0	T		GS600	1		0.5					
6	MANPDB	PROC			S										
6	MANPDB	PROC		1.0	P	50.0									
7	MAQCMB	TEST		1.0	T		GS600	1		0.5					
7	MAQCMB	TEST			S										
7	MAQCMB	TEST		1.0	P	120.0									
8	MANPDA	PROC		1.0	T		GS600	1		0.5					
8	MANPDA	PROC			S										

OPERATION PROFILE

NAME BB ALC WR DATE 4/22 RCC MANPSB SHEET 3 OF 3

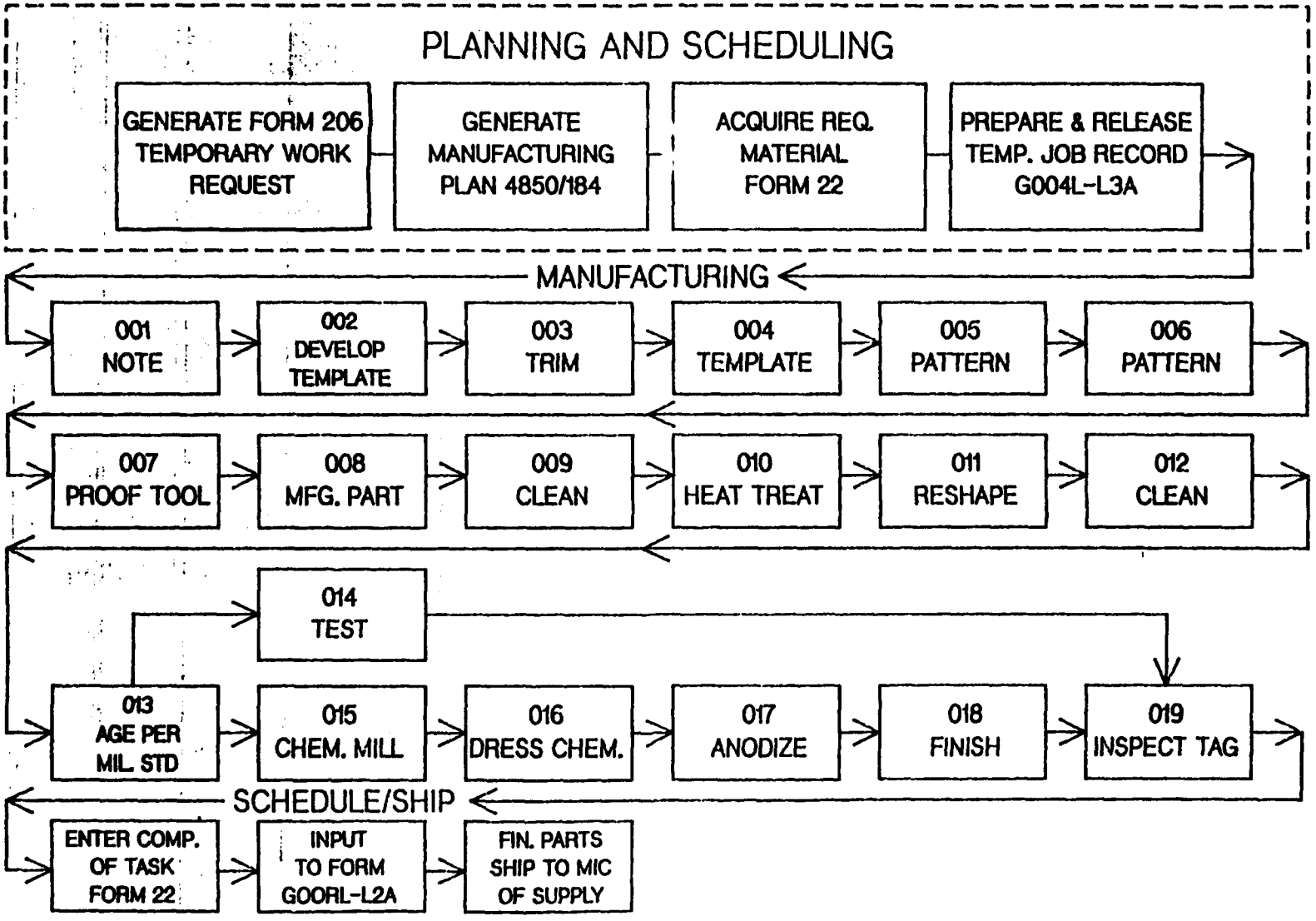
ITEM CD PCN M3851K WCD WCDDATE

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
8	MANPDA	PROC		1.0	P	40.0									
9	MANPDA	PROC		1.0	T		GS600	1		0.5					
9	MANPDA	PROC			S										
9	MANPDA	PROC		1.0	P	40.0									
10	MANPSB	INSP		1.0	T		GS600	1		0.5					
10	MANPSB	INSP			S										
10	MANPSB	INSP		1.0	P		50359	1		0.5					
10	MANPSB			1.0	P		46005	1		0.5					

RCC: MANPSB PCN: M0221K, M0220K, M0219K, M0229K, M0218K

WR-ALC NOUN: F-15 STIFFENER

PROCESS FLOW CHART



OPERATION PROFILE

NAME B Bashyam ALC W01 ALC DATE 4/12 RCC MANPOB SHEET 1 OF 1

PCN
NSN
P/N M0218K WCD _____ WCD DATE _____

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
X IN	MAN PJB	REC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		05					
X 9999	MAN PJB	SELL	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

LSC-2000-2C

OPERATION PROFILE

NAME BASHYAM ALC WR ALC DATE 4/22 RCC MANP8B SHEET 1 OF 1

(PCN) NSN PIN M0219K WCD — WCD DATE —

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
X IN	MAN P8B	REC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1.0		0.5					
X QC199	MAN P8B	S&U	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1.0		0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

LSC-20002C

OPERATION PROFILE

NAME BB ALC WR-ALC DATE 4/24 RCC MANBBB SHEET 1 OF 1

PCN / NSN / P/N M0220K WCD — WCD DATE —

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS %	MANDATORY FLOW HOURS HRS.	MANPOWER SKILL CODE/ LEVEL	MANPOWER QTY.	MANPOWER TIME REQUIRED %	MANPOWER TIME REQUIRED HRS.	EQUIPMENT EQUIPMENT CODE	EQUIPMENT QTY.	EQUIPMENT TIME REQUIRED %	EQUIPMENT TIME REQUIRED HRS.	DATA SOURCE COMMENTS
X IN	MAN BBB	REC	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
✓ OUT	MAN BBB	SELL	1.0	TRANSIT											
				SETUP											
				PROCESS		1.0	50359	1		0.5					
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											
				TRANSIT											
				SETUP											
				PROCESS											

5.1 PROFILE DATA FILES

The profile data files for RCC MANPSB were previously submitted under memo number NKE-E016-7603, dated July 6, 1989.

5.2 MODEL INPUT FILES

The model input files for RCC MANPSB were previously submitted under memo number NKE-E016-7603, dated July 6, 1989.

6.0 VALIDATION OF INPUT DATA

All profile data was validated in accordance with paragraph 7.2 and 7.3 of the Simulation Model Definition Document (SMDD). The profile data files included in this document were validated and accurately represent this RCC.

MINUTES OF

MODEL VALIDATION MEETING

June 19 thru June 23, 1989

WR-ALC/MDMSC

6-29-89

WR-ALC MODEL VALIDATION
MEETING MINUTES

19 June 89:

- Jim Gillis started the meeting by introducing team members:

  - Jim Gillis
  - Gerald Peavy
  - Doug Keene
  - Lott Singletary

  AFLC Representative:

  - Trixie Brown

  MDMSC Representatives:

  - Bob Bashyam
  - Bill Rich
  - Roger VanderVoord
  - Scott Vroman

- Jim pointed out that AFLC instructed them not to sign off the Model Validation Form.

- Reviewed model output for RCC MANPSA. Evaluated throughput, historical flow hours vs. simulated flow hours, expected hours vs. standard hours.

- This evaluation was performed for each item number. During this process list of major assumptions, action items and concerns were noted.

  PCN 01900A: F-15 Speed Brake

  - Historical flow hours 933.5 vs. 466.70 of simulated flow hours.

    Assumption:

    Method of induction may be a problem. History does reflect 500 hours to complete first operation which is inspection.

    Historical backshop hours were greater than simulated hours. We decided to input backshop hours back into the model.

PCN 01900A: F-15 Speed Brake (continued)

. Action items:

Doug to verify the manpower utilization. Bill to review expected and standard hours.

PCN 05502A: C-141 Aileron

. Simulated throughput 13.2% difference. The difference was due to sporadic induction method.

PCN 51334A: C-141 Leading Edge Horizontal Stabilizer

. Bill to review expected hours.

. Increase backshop hours by 180 hours based on historical report.

PCN 51352A: C-141 Access Door

. Bill to review expected hours.

. Increase backshop hours based on historical report.

PCN 51418A: C-141 Leading Edge Wing

. Bill to verify expected hours.

PCN 51454A: C-141 Petal Door

. Bill to review the subassembly process hours.

. History had one sample of 698 days - adjusted for this odd occurence and made hours from 2288 to 1334.

. This completes the evaluation of model output for RCC MANPSA. At the end of this evaluation, Bob summarized the action items and assumptions. Jim commented that the model

seems to be doing what it is suppose to and asked MDHSC team to complete the action item and re-run the output. Jim also stated that either expected or standard hours can be used in establishing baseline of model based on IE's judgment. AFLC's representative, Trixie Brown, disagreed with Jim's comment. Validation team decided that during evaluation of difference between historical vs. simulation, 10% should be used only as a guideline not as a measurement.

Evaluation of RCC MANPGC:

- Evaluated the model output for the following PCNs: 06121A, 74061A, 74063A, 74146A, 74148A and 74149A.
- Review of throughput, historical vs. simulated flow hours and expected vs. standard hours revealed the following:
  - Expected vs. standard hours were within acceptable range.
  - Throughput was good.
  - Flow hours showed lot of difference between simulation and history. Review of historical report revealed that an unique pattern of process is being followed in Gyro Shop. Gyros after inspection were stored/held for long period of time before the start of repair operation.
  - Discussed about this problem. Doug and Jim wanted to have some methodology to show the unique holding process.

20 June 89:

- Bruce Kirk of MDHSC joined us to facilitate our brainstorming effort.
- Conducted brainstorming effort at Building 169. Morning session for Sheet Metal RCC's MANPSA, MANPSB, MANPSC, and MANPSD and afternoon for Gyro RCC's MANPGA, MANPGB, and MANPGC.

- Due to the nature of process and similarity we decided to have one brainstorming effort for Sheet Metal (4 RCCs) and one for Gyro (3 RCCs).
- Doug arranged both the sessions by bringing in representatives from manufacturing, scheduling, planning and quality.
- Both the sessions went out very good with a lot of participation. Developed fish bone - details of fish bone and brainstorming activities are covered in minutes of model validation/brainstorming.

21 June 89:

- Evaluated the model output for all the RCCs MANPSA, MANPSB, MANPSC, MANPSD, MANPGA, MANPGB, and MANPGC.
- Redlined the backshop hours and added buffer operations as requested by ALC for Gyro RCCs.
- Input all the changes and re-run the model.
- Dick Donnelly and Lou Mavros joined us to support our model validation effort.
- Dick, Lou, Bob and Gerald had an opportunity to meet Mr. Clinton Lewis. Discussed about the validity of model and about future task orders.
- Jim Gillis will be on vacation for the rest of the week.

22 June 89:

- Evaluated the re-run of model ouput after inputting the redlined corrections.

MANPSA

01900A: F-15 Speed Brake

- Expected vs. standard hours is acceptable.
- Historical vs. simulated flow hours - still have a problem. History shows operation 10 takes about 500 hours to complete. This is due to induction and priority problem. Operation 40 shows 68 hours to complete (waiting for engineer) whereas model shows 1 hour. One hours represents process hour whereas 68 hours includes waiting time also.

05502A: C-141 Aileron

- This a PDM item. No historical data available. Evaluated the output and verified with mechanics and planners to validate the model output.

051334A: C-141 Leading Edge Horizontal Stabilizer

- Standard vs. expected hours is within acceptable range.
- Backshop hours were off. Redlined the output.

51454A: C-141 Petal Door

- Model output does seem to represent as-is condition.

51352A: C-141 Access Door

- Redlined backshop hours to represent historical data.

MANPSD

09193A: F-15 Radome

- Expected vs. standard hours is within acceptable range.

- Simulated flow hours are almost double the historical. Review showed us operation 190 takes about 550 hours to complete.

- Operation 190 is repair operation performed by one mechanic for about 50 hours. Model shows the manpower availability as a problem.

- Doug pointed out that the model exaggerates the problem.

41059A: C-130 Radome Assembly

- Model output does seem to represent the as-is condition.

- Needed to verify the historical data of 500 hours for operation 10.

51420A: C-141 Wing Leading Edge

- Evaluated the output and redlined backshop hours.

40208A: C-130 Radome

- Ouput does seem to represent the as-is condition except the historical hours for Operation 30.

- History shows that it takes over 4000 hours to complete Operation 30.

- Bob to check the historical input data at St. Louis, if availabe and respond to WR-ALC.

03172A: F-15A Canopy

- Evaluated model output. History shows that it takes approximately 1180 hours to complete Operation 10.

- Operation 10 is to inspect and determine what parts are required to perform the repair. It does wait for a long time in getting those required parts.

MANPSB

- This is a manufacturing RCC.
- No historical data for analysis. Reviewed only the throughput.
- Model output was validated based on it's performance on the other 6 RCCs.

MANPG

- Evaluated the re-run of model out for RCCs MANPGA, MANPGB and MANPGC.
- Output for these RCCs were reviewed earlier. Buffer operation were added where necessary to represent historical data.
- Output for PCNs 74010A, 74074A, 74163A, 74126A, 74051A, 20012A, 06121A, 74061A, 74063A, 74146A, 74148A, and 74149A from all the three RCCs were individually evaluated.
- Flow hours, process hours and throughput were within acceptable range. Model does represent the as-is condition.
- Doug and Lott questioned the validity of historical data for PCNs 74074A and 20012A. Wanted to verify with manufacturing personnel.

23 June 89:

- Doug and Lott verified and confirmed the flow hour information.
- Reviewed the re-runs of model output.
- Bob compiled the meeting of minutes and reviewed with team members.

- WR-ALC/AFLC/MDMSC validation team agrees that the model seems to represent the approximation of as-is condition of RCCs MANPSA, MANPSB, MANPSC MANPSD, MANPGA, MANPGB and MANPGC; therefore, the model can be used as a baseline for experimentation.

Doug Keene, WR-ALC/MANEE

Lott Singletary, WR-ALC/MANEE

Jim Gillis, WR-ALC/MAWF

Gerald Peavy, WR-ALC/MAWF

Trixie Brown, AFLC/MAQF

Scott Vroman, MDMSC

H. V. "Bill" Rich

Bill Rich, MDMSC

for Roger VanderVoord, MDMSC

Bob Bashyam, MDMSC

6-29-89 / Rev-1
BB/fej

7.0 COMPUTER SIMULATION ANALYSIS OF RCC

The computer simulation analysis for RCC MANPSB was previously submitted under memo number NKE-E016-7603, dated July 6, 1989.

8.0 VALIDATION OF SIMULATION ANALYSIS

The validation of simulation analysis for RCC MANPSB was previously submitted under memo number NKE-E016-7603, dated July 6, 1989.

9.0 BRAINSTORMING

The minutes for RCC MANPSB brainstorming were previously submitted under memo number NKE-E016-7603, dated July 6, 1989.

MINUTES OF

BRAINSTORMING SESSIONS

June 20, 1989

WR-ALC/MDMSC

MINUTES OF BRAINSTORMING
SESSION FOR FOUR SHEET METAL RCCs
- June 20, 1989 Morning Session -

Jim Gillis started the brainstorming session by introducing the facilitator Bruce Kirk of MDMSC. The following were in attendance for this session:

Bashyam, Bob	MDMSC
Gillis, Jim	WR-ALC/MAWF
Jackson, John	WR-ALC/MANERS
Keene, Doug	WR-ALC/MANEE
Kirk, Bruce	MDMSC
Kittrell, Don	WR-ALC/MANSCA
Morrison, Michael	WR-ALC/MANERS
Nicholson, Richard	WR-ALC/MANERS
Powell, David	WR-ALC/MANPSA
Rich, Bill	MDMSC
Singletary, Lott	WR-ALC/MANEE
VanderVoord, Roger	MDMSC
Warnock, Kevin	WR-ALC/MANEE
Williams, Sam	WR-ALC/MANPSA

Bruce Kirk being the facilitator briefed to participant the process of brainstorming. Bruce emphasized flow time is the quality characteristic that we are trying to improve or minimize. With that round robin solution presentation process started. Following are the suggestions:

1. Time in Wet Clean (Back Shop).
2. Prioritize of workload (F-15 first).
    a. May stop in middle of repair to respond.
    b. Demand system.
3. Manpower.
4. Training shop - mechanics get transferred to F-15 Shop.

5. Two shifts in certain shops.

6. Lack of space and environmental control.

7. No storage space for fixtures etc.

8. Chemical availability - anodize, etc.

9. Hand tools - proper matching to job. Prompt replacement of broken tools. Resizing the tool box may improve space.

10. Workload - need better forecasting.

11. RCC MANPSB completes then ships to storage - delay 10 to 15 days to get the same part back in finishing the repair.

12. Major repair coordination with Engineering - delays.

13. Update drawings requires 60 days.

14. Expedite travel of priorite parts.

15. Space organization.

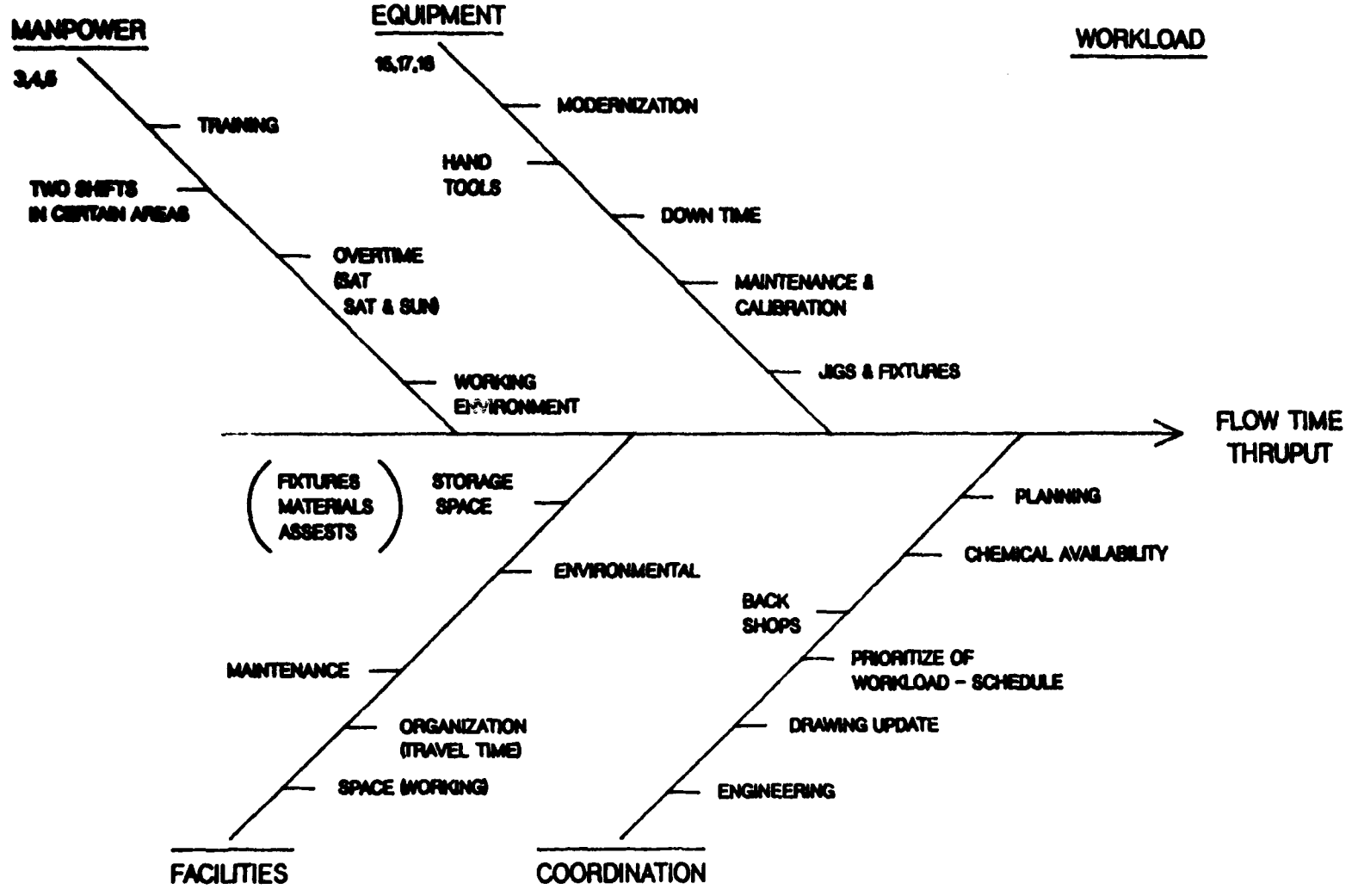
16. Equipment modernization.

17. Equipment preventive maintenance and calibration.

18. Jigs and fixtures - modify to ease use without removal. Work stand - better accessibility.

DEVELOPED FISHBONE (CAUSE AND EFFECT) DIAGRAM.

SHEET METAL SHOP
FISHBONE - CAUSE & EFFECT DIAGRAM



RCC: MAN PSB SUMMARY OF RE-EVALUATION

- Reformatted the results of L_9 taguchi orthogonal array table.
- Evaluated throughput of each run for average throughput of RCC.
- Analyzed and tabulated results of best and worst PCN for each run including surge.
- This approach gives us a better understanding of the RCC's capability, process, and bottlenecks.

MANPSB SHEET METAL SHOP TAGUCHI ORTHOGONAL ARRAY

TABLE 10.5.2-1

RUN #	FACTORS & LEVELS						WORKLOAD (THROUGHPUT)		
	MANPOWER			OVERTIME		EQUIPMENT	INDUCTIONS: 19,178: 130% OF FY 88		
	1	2	3	SAT	SUN		AVG.	BEST	WORST
1	ALL					BASE	92.5 %	M0218K 100.3 %	M5743K 49.0 %
2	ALL			YES	YES	BASE +	98.5 %	M0218K 102.0 %	M9929K 98.0 %
3	ALL			YES	YES	BASE ++	98.8 %	M0218K 101.0 %	M9929K 98.0 %
4	50%	50%				BASE ++	98.7 %	M0218K 100.3 %	M9929K 97.5 %
5	50%	50%		YES	YES	BASE	98.9 %	M0218K 100.0 %	M9929K 98.0 %
6	50%	50%		YES	YES	BASE +	98.5 %	M0218K 100.1 %	M9929K 96.0 %
7	1/3	1/3	1/3			BASE +	98.0 %	M0218K 101.0 %	M9929K 98.0 %
8	1/3	1/3	1/3	YES	YES	BASE ++	98.9 %	M0218K 101.0 %	M9929K 98.0 %
9	1/3	1/3	1/3	YES	YES	BASE	99.0 %	M0218K 101.0 %	M9929K 98.0 %
SURGE*	50%**		50%**			BASE	97.0 %	M0218K 100.0 %	M9929K 93.0 %

NOTES:
* INDUCTIONS ≈ 10,080 (2 QTRS)
** TWO 12 HOUR SHIFTS.

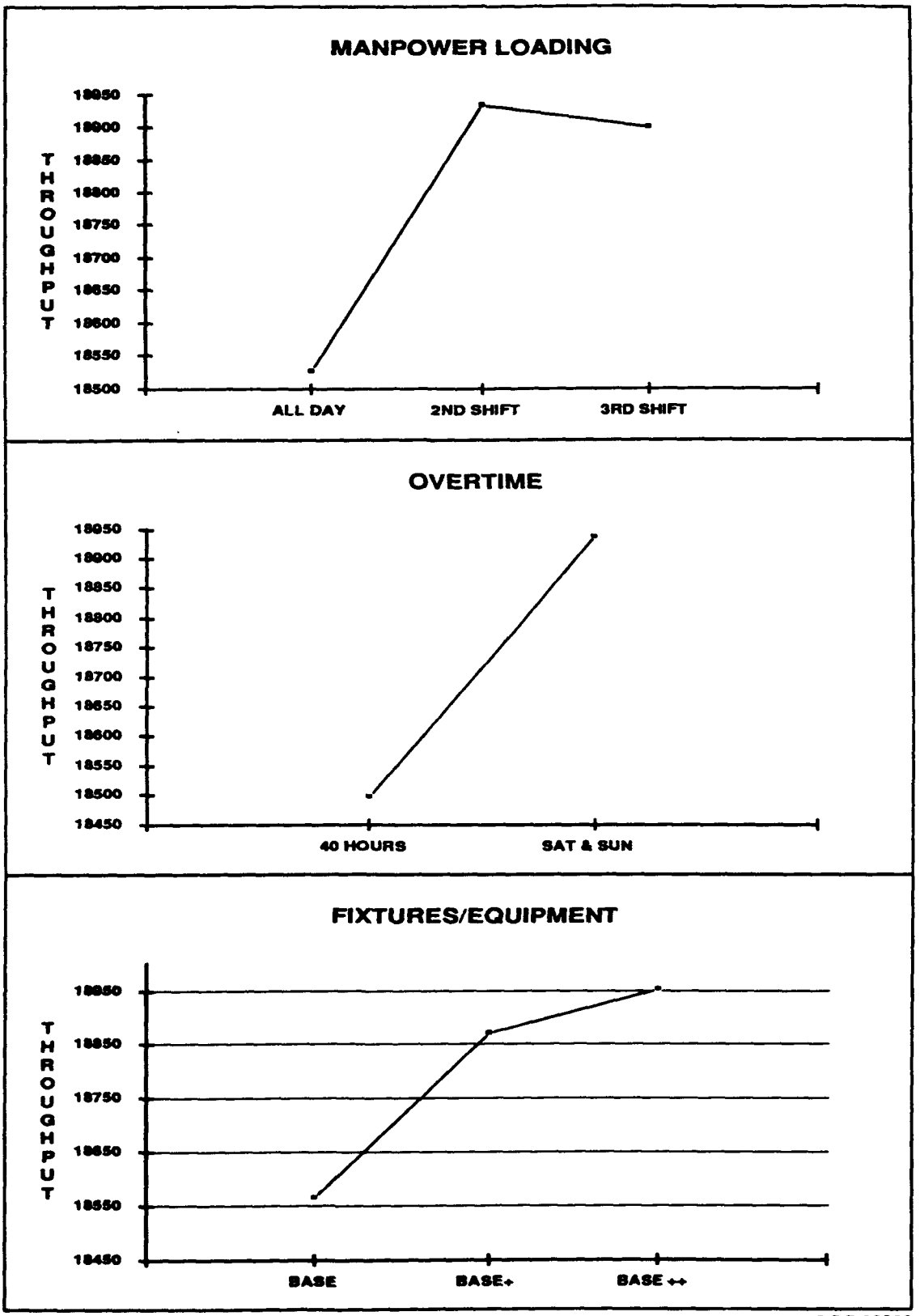
LSC-20622

MANPSB SHEET METAL TAGUCHI ORTHOGONAL ARRAY

TABLE 10._-_-_

RUN #	FACTORS & LEVELS						WORKLOAD (THROUGHPUT)			
	MANPOWER			OVERTIME		EQUIPMENT	130% OF FY 88		SURGE	
	1	2	3	SAT	SUN		QTY	%	QTY	%
1	ALL					BASE	17,740	92	9764	97
2	ALL			YES	YES	BASE +	18,886	98		
3	ALL			YES	YES	BASE ++	18,957	99	1040	86
4	50%	50%				BASE ++	18,927	98.6		
5	50%	50%		YES	YES	BASE	18,978	99		
6	50%	50%		YES	YES	BASE +	18,899	98.5		
7	1/3	1/3	1/3			BASE +	18,824	98		
8	1/3	1/3	1/3	YES	YES	BASE ++	18,976	99		
9	1/3	1/3	1/3	YES	YES	BASE	18,977	99		

LSC-20313



LSC-20309

MANPSB EXPERIMENTATION RESULTS

WR-ALC MANPSB

MANPOWER:

WORKLOAD 19,178

① $\frac{17740 + 18886 + 18957}{3} = 18527 = 96.6\%$

② $\frac{18927 + 18978 + 18899}{3} = 18935 = 98.7\%$

③ $\frac{18824 + 18976 + 18977}{3} = 18926 = 98.7.$

OVERTIME:

$$\frac{18977 + 18886 + 18957 + 18978 + 18899 + 18976}{6} = 18945 = 98.8\%$$

$$40\text{HRS} = \frac{17740 + 18927 + 18824}{3} = 18497 = 96.4\%$$

FIXTURE/EQUIPMENT.

BASE: $\frac{17740 + 18978 + 18977}{3} : 18565$ 97%.

BASE+: $\frac{18899 + 18824 + 18886}{3} : 18870$ 98%.

BASE++: $\frac{18957 + 18927 + 18976}{3} : 18953$ 98.8%.

MANPSB – WRALC

BASE : INCREASE WORKLOAD BY 130% OF FY88
MAINTAIN ALL OTHER RESOURCE FILE AS
IN AS-IS CONDITION

BASE+ : INCREASE WORKLOAD BY 130% OF FY88
MAINTAIN ALL OTHER RESOURCE FILE AS
IN AS-IS CONDITION – EXCEPT – DELETE
EQUIPMENT PM0795

BASE++ : INCREASE WORKLOAD BY 130% OF FY88,
MAINTAIN ALL OTHER RESOURCE FILE AS
IN AS-IS CONDITION.

SURGE : . INCREASE WORKLOAD OF FY88 BY SURGE
PERCENTAGE, F15 - 61%, C141 - 246%, & C130 - 159%.

. EXECUTE RUN #1 FOR 2 QTR'S AND
SEE THE SENSITIVITY.

MANPSB - WRALC

Summary:

THIS RCC MANPSB OF WRALC IS BASICALLY A MANUFACTURING RCC. VARIETIES OF ITEMS OF DIFFERENT CONFIGURATION IS BEING PROCESSED. MDMSC/WRALC SELECTED FAMILY OF PARTS FOR PROCESS CHARACTERIZATION. AFTER VALIDATION OF THIS RCC DURING BRAINSTORMING SESSION WE DISCUSSED THE FACTORS FOR THIS RCC. TWO THINGS WE DECIDED TO DO: 1) INCREASE THE WORKLOAD 2) DELETE ONE OF THE STRETCH WRAP PM 0795.

SIMULATION OUTPUTS INDICATES THAT THE 180% OF FY88 THROUGHPUT CAN BE ACCOMPLISHED WITH PRESENT MANPOWER. DELETION OF PM OPS DOES NOT AFFECT THROUGHPUT. WE HAVE TO REMEMBER OUR ITEMS ARE ONLY 80%.. (80/20 APPROACH) OF THE RCC.

ANALYSIS OF OUTPUT INDICATES THE SPREADING OF THE MANPOWER WITH OVERTIME PRODUCES HIGHEST THROUGHPUT.

SENSITIVITY RUN FOR SURGE CONDITION WAS EXECUTED AND FOUND THAT THE RCC DOES HAVE CAPABILITY TO MEET SURGE REQUIREMENTS.

THE RUN WAS EXECUTED FOR ONLY 2 QTRS.

TECHNOLOGY INSERTION PROGRAM
WR-ALC
MANPS - SHEET METAL SHOP

Bob Bashyam
Bill Rich

Possible Focus Study List

	Description	RCC
1.	Study to Improve Facilities Layout for Building 169	MANPSC MANPSA
2.	Study to Improve Facilities Layout for Building 603	MANPSD
3.	Study to Improve Facilities Layout for Building 670	MANPSD
4.	Redesign/Modify Existing Jigs/Fixtures Such As Aileron Jig (Make Working Jig in lieu of Solely a Check Fixture)	MANPSA MANPSC
5.	Redesign/Modify Existing Holding Fixtures so as to Rotate/Lock Part Being Repaired for Better Access and Less Worker Strain	All
6.	Study to Design Holding Fixtures (Customized Shape/Size to be Used in lieu of Flat-Top Tables)	All
7.	Study to Make a Fully Computerized "Work Book" (WCD) System in lieu of Current Unreadable "Paper-Mill"	All
8.	Study for CADAM Data Storage and Retrieval MASTER Demension Control System for General Tool Demensional Control as well as for Part/Assembly Data Source	All
9.	Study to Complement LIFT Plan and to Determine/Assign Priorities for New, More Modern/Diverse Sheet Metal Machinery, Facilities, and Equipment	All
10.	Feasibility Study for WR-ALC to Manufacture C-141 Petal Door Outer/Inner Skin Assemblies In-House	All

TECHNOLOGY INSERTION PROGRAM
WR-ALC
MANPS - SHEET METAL SHOP

Bob Bashyam
Bill Rich

Possible Quick Fix List

	Description	RCC
1.	Develop a Mechanic's "Hand Book" for Each Repaired Assembly	All
2.	Implement Mechanic "Buy-Maintain" (Buying Only Necessary Tools!) Tool-Set Program	All
3.	Provide Heavy Cardboard Shipping Boxes for Small/Medium Size Parts	All
4.	Move Bond Mechanics Closer to the Autoclaves	MANPSA MANPSC
5.	Provide Level Aileron Support Tables Until a Better Holding Fixture Can Be Provided	MANPSA
6.	Provide Better Quality Drill Bits in lieu of the Current Re-Sharpened Ones	All
7.	Provide Certain Mechanics with a Needed 45-Degree Angle Drill Attachment and an Approximate "3X" Rivet Gun (For 1/8"/5/32" Rivets)	All
8.	Provide Pictorial - Drawings with the Existing "Work Books" (WCD's)	All
9.	Review and Allocate Sufficient and Dedicated Work Space for Each Work Station	All
10.	In Conjunction with 2 Above, Reduce Size of Mechanics Tool Box to Approximately 1/2 the Current Size (Thereby Saving Much Valuable Space)	All
11.	Put More Emphasis on QP4!	All

Possible Quick Fix List (continued)

MANPS
Bob Bashyam
Bill Rich

	Description	RCC
12.	Include the Manufacturing Supervisor in ALL Task Force Formations When Quality/Production Would Be Discussed or/and Decisions Made to Affect Same	All
13.	Design/Build Aileron Tab Hinge Locator	MANPSA
14.	Design/Build a "Newspaper Clipping Cutter" to Cut the Thin Skins on the C-141 Horizontal Stabilizer Leading Edges	MANPSA
15.	Evaluate Cleanliness Condition in Work/Staging Area Near the Autoclaves in Building 169	MANPSA
16.	Review Safety Precautions in the Use of Methel-Ethel-Ketone (MEK), Depleted Uranium Counter-Balance Weights and Asbestos Clamps Used in Building 603 on the C-141 Wing Leading Edge	All
17.	Senior Mechanics/Supervisors/Alternates should Outline the Repair Processes for the Repaired Assemblies (to be Used in Conjunction with 1 Above)	All
18.	Implement Methodology to Eliminate Missing Petal Door Strake Parts	MANPSA
19.	Use "T" Material (Form in "W" Temper) in lieu of "O"	All
20.	Use Lockhead "Status" to Determine Latest Drawing/Effectivity	All
21.	Certify Mechanic Doing Repair Work on the Horizontal Stabilizer Leading Edges for "Ohmmeter" and "Brazing" Use	MANPSA
22.	Need "Window Area" Plot for F-15 Radome Repair Use	MANPSD

Page 6 of 9

Possible Quick Fix List (continued)

MANPS
Bob Bashyam
Bill Rich

	Description	RCC
23.	Need Holding/Support Fixtures for ALL Radomes	MANPSD
24.	Move F-15 Canopy Repair Effort Out of Building 670	MANPSD
25.	Provide Capability to Brush Alodine for Building 603	MANPSD
26.	Remove C-130 Leading Edge (Unused) Jigs From Building 603	MANPSD
27.	Need Better/Larger/Cleaner Toilet Facility for the Women Mechanics in Building 603	MANPSD
28.	Need More Space for the C-141 Nozzles in Building 603	MANPSD
29.	Need More Space for the Radomes in Building 670	MANPSD
30.	Combine Repair Operations for the C-141 AFT Cowl Door to Use One (1) Mechanic in lieu of the Present Two (2)	
31.	Make Available to ALL ALC's Paul C. Bevan "Patch-Puller-Ring" for Fiberglass Repair	MANPSD
32.	Encourage Suggestions Like Wendell Pittman's Investigation and Persistence in His Investigation of Missing Petal Door Strake Parts	MANPSA
33.	Make Use of and Assign More Manufacturing Responsibility to the Planning Section for ALL Manufacturing/Engineering Coordination	
34.	Make Available Cobalt-Tipped Drill Bits, or Equipment, for Mechanic's Use for Drilling Out Fasteners	

Following are the Potential Improvements for Quick Fix.

10.0 WARNER ROBINS AIR LOGISTIC CENTER (WR-ALC)

10.1 QUICK FIX OPPORTUNITY TO DEVELOP A MECHANIC'S "HAND BOOK" FOR EACH REPAIRED ASSEMBLY. THE MECHANICS WOULD OUTLINE THE REPAIR PROCESSES FOR THE ASSEMBLIES BEING REPAIRED (MANPS).

10.1.1 Description of Current Operations

Most of the mechanic's training is received by actual "on-the-job" experience working with someone more experienced on the particular unit being repaired. Most experienced mechanics have made written notes to help guide them in the repair effort.

10.1.2 Description of Current Process Problems

The mechanic's sequence of tear-down, inspection and repair may vary compared with the WCD operation numbering. Certain peculiarities in the rework process may require a knowledge far in excess of the T.O. and the WCD instructions.

10.1.3 Description of New Process

Compile and publish a mechanic's training handbook written for each assembly being repaired in MANPS. The manual would compliment and supplement the Technical Orders and be compiled by training specialists using the experiences and input of the top mechanics currently doing the repair work as a guide. The training manual would be initiated to recognize the subtles of the repair process and would document all major steps and techniques of each repaired assembly unit. The Manual would be coordinated through the Training Monitor and the cognizent Process Engineer, Manufacturing Engineer, Planner, Production Supervisor and Quality People.

10.1.4 Rationale Leading to Change

The "Hand-Books" would help train new people in a rapid build-up such as a "Surge" or "War-Time" situation or in any crisis such as the present mechanics "turn-around" due to the F-15 wing effort or where a production rate increase would be necessary. Additional training and motivational courses would also be beneficial in conjunction with the "Hand-Books".

10.1.5 Estimated Cost Savings

Observations and interviews have indicated a potential average increase in efficiency for each new/old mechanic of 20% for the first 30 day period and a 10% increase therafter.

10.1.6 Implementation Cost/Schedule

Cost of an existing training specialist to coordinate the inputs is estimated to be $10,000 per anum (pro-rated).

Cost of preparing and reproducing each manual is estimated to $10 per copy.

Implementation could be realized in about 60 days from "Go-Ahead".

10.2 QUICK FIX OPPORTUNITY TO IMPLEMENT MECHANIC "BUY - MAINTAIN" TOOL-SET PROGRAM (BUYING ONLY NECESSARY TOOLS, THEREBY REDUCING THE SIZE OF THE TOOL BOX) (MANPS).

10.2.1 Description of Current Operations

All sheet metal mechanics are issued a standard set of tools, a tool box and a tool stand with drawers. Some of the tools have an everyday use, some have a limited use and some of the tools issued are never used: For example, the rivet guns issued have limited use while the most widely used gun, (3X type for 1/8" and 5/32" ad rivets) is not included - neither has a 45 degree pheumatic angle drill attachment been included. There are other instances.

10.2.2 Description of Current Process Problems

In some instances the replacement of a broken tool takes up to several weeks for replacement. In the interim, the mechanic either uses a "loaner" from the tool crib or borrows/shares a tool with a team member. These large tool box/tool stand occupy much valuable space and to reduce the number of tools would save much space, by requiring much smaller box/tool stands.

10.2.3 Description of New Process

Other repair facilities require the mechanics to buy and maintain their own set of necessary tools. These companies establish the requirements for the tool set and assist the mechanics in selecting the manufacturers of the tools. Inferior quality items that do not hold up and which constantly require replacement are eliminated. The tool manufacturers most often offer a life-time guarantee and a substantial discount to the mechanic because of the volume purchases. This has proven to be cost effective in many instances, for maintenance facilities such as Eastern, Delta, Hayes and Lockheed Air Service, etc.

One or two sets of "Limited-Use Tools" could be issued to a RCC repair area for general use.

10.2.4 Rationale Leading to Change

- The reduction of the number of tools/tool box/tool box stand by 50% would save much space.
- Eliminate/reduce tool crib manpower and storage area.
- Eliminate/reduce buying activity and expense.
- Provide the mechanic with the necessary tools to work with!
- Provide the mechanic with an expeditious way to replacd broken tools.
- Make the mechanic responsible for the tools that he uses to do his assigned tasks.

10.2.5 Estimated Cost Savings

Interviews have indicated a possible savings of 10 man hours per week for each mechanic if he/she had a proper "Tool Set".

Observations have shown that a reduction in size due to the mechanic having only necessary tools from 6.50 square feet to 3.25 square feet would also save approximately 3 square feet per mechanic. This would be a significant amount of space to be gained in Building 670, for example.

10.2.6 Implementation Cost/Schedule

The schedule and implementation cost would require further study and selection of tool needs, which would vary with each RCC, and tool suppliers.

10.13 QUICK FIX OPPORTUNITY TO MOVE BOND MECHANICS CLOSER TO THE AUTOCLAVES OR ALLOW THE REPAIR GROUP CLOSE TO THE AUTOCLAVE TO DO THE BOND WORK (MANPSA).

10.13.1 Description of Current Operations

In addition to other miscellaneous small bonded assembly units, there are approximately fourteen (14) frame and longeron assemblies for the C-141 Petal and seven (7) Leading Edge Sections for the C-141, Aileron which require the units to be rebonded when they undergo repair.

10.13.2 Description of Current Process Problems

The Aileron parts are rebuilt in W. Blackmon's area adjacent to the autoclave area and returned to S. Williams' control after completion, but the Petal Door parts are rebuilt in T. Cherry's area and then sent to rebond by the Petal Door mechanic and returned to him after completion. This is not an efficient flow of work effort.

10.13.3 Description of New Process

(Need to "certify" all mechanics in Bond Shop.)

Move those workers closer to the autoclave who work/repair small bonded assemblies such as the frame assemblies for the C-141 Petal Doors and the C-141 Aileron Leading Edges, thereby reducing time lost by going back and to. (Always make the transit worker responsible to the Supervisor who is responsible for the final inspection and buy-off of the unit being repaired).

An alternate way to eliminate to and fro travel by the mechanics would be to allow the repair group close to the autoclave to do <u>all</u> the bond work.

10.13.4 Rationale Leading to Change

Centralizing the bonding of small rebuilt assemblies would tend to:

- Eliminate wasted time and steps.
- Produce consistently better quality work.
- Have the bonding operation in a cleaner and better controlled enbvironment.
- "Free" the "Home" mechanic to do more specialized work for which he is more qualified than others.

10.3.5 Estimated Cost Savings

It is estimated that a savings of 10 man hours per week could be realized.

10.3.6 Implementation Cost/Schedule

Cost of moving would be negligible and the schedule-to-move would be very flexible.

10.4 QUICK FIX OPPORTUNITY TO PROVIDE LEVEL AILERON SUPPORT TABLES UNTIL A BETTER HOLDING FIXTURE CAN BE PROVIDED (MANPSA).

10.4.1 Description of Current Operations

The support tables for the C-141 Ailerons are not all the same height requiring time and effort to level, per WCD instructions, before the Aileron can be worked. The Aileron must be level while skin work, hinge work, tab removal work or the leading edges are removed.

10.4.2 Description of Current Process Problems

(The effort to level the tables has been in the planning stage for about a year or so, according to some interviewees in the area.)

10.4.3 Description of New Process

Provide tables the same height to support the Ailerons (until customized cradle-type support holding fixtures are available).

10.4.4 Rationale Leading to Change

The customized cradles will support the Ailerons and eliminate the "Man-handling" and "Flip-flopping" from side to side and also allow both sides and the beam/tab area to be worked simultaneously.

10.4.5 Estimated Cost Savings

The level tables will save leveling time (usually 15-20 minutes) for 2 -3 mechanics and eliminate overhanging of the Aileron when tables are not available.

10.4.6 Implementation Cost/Schedule

The cost and schedule of leveling the existing tables should be available through Kevin Warnock (926-4446).

10.5 QUICK FIX OPPORTUNITY TO PROVIDE PICTORIAL - DRAWINGS WITH THE EXISTING "WORK BOOKS" (WCD'S) (MANPS).

10.5.1 Description of Current Operations

The current copies of the WCD's (Work Books) are difficult to read and hard to understand. (This is true industry-wide.)

10.5.2 Description of Current Process Problems

Mechanic personnel do not adequately use the WCD's for repair instructions! They do not make proper use of the T.O.'s either!

10.5.3 Description of New Process

The Production Planner, with assistance from the Art Department, should provide a pictorial drawing, (exploded step-by-step drawing or otherwise), to accompany the "Work Book" (Work Control Document) to assist the worker to better understand the task and to help train others in a Surge or War-Time emergency situation.

10.5.4 Rationale Leading to Change

New mechanics (and old mechanics, also) would be more productive and understand what they are doing if better work instructions were given them.

Most other repair facilities are using pictorial drawings to supplement the T.O.'s and the planning sheets, and quality has in most cases, improved considerably because the mechanic better understood what they were supposed to do.

10.5.5 Estimated Cost Savings

It is estimated that the mechanic's efficiency would increase from 10% to 20% (but would vary with the individual) if he/she had a more comprehensive and understandable set of repair instructions to follow.

10.5.6 Implementation Cost/Schedule

A full time illustrator to make the drawings would cost approximately $20,000 per year and could reduce the planning staff by a like number due to a reduction in contacts from manufacturing. An estimate of about 30 - 90 days to hire the necessary people and organize the effort would be required.

10.~~10~~6 QUICK FIX OPPORTUNITY TO DESIGN/BUILD AILERON TAB HINGE LOCATOR (MANPSA).

10.~~10~~6.1 Description of Current Operations

The current method, when a tab hinge bracket has to be replaced, is to use the tab assembly as a tool and locate the bracket being replaced by using the tab. This is rather difficult to do because the tab leading edge is in the way which makes it hard to position and locate the required shims behind the new fittings.

10.~~10~~6.2 Description of Current Process Problems

A hinge locator and alignment tool is sorely needed to assist the replacement of an aileron tab hinge fitting on the C-141 Aileron rear beam.

10.~~10~~6.3 Description of New Process

A simple bar type locator tool would be sufficient and speed up the task.

10.~~10~~6.4 Rationale Leading to Change

Observation and interviews with the supervisor and several mechanics indicated the hinges replacement was a problem.

10.~~10~~6.5 Estimated Cost Savings

The hinge replacement requires an average of 10 man hours per Aileron to replace the bad tab hinge fittings. This time would be reduced to approximately 1/2 of this or about 5 man hours with a bar-type locator tool.

10.~~10~~6.6 Implementation Cost/Schedule

The cost of a simple bar-type tool would be the primary cost involved:

- Material Cost = $500 (Steel tube and bar)
- Welding = 100 (4 man hours)
- Machining = 300 (10 man hours)
- Engineering = 500 (8 man hours)

10.~~11~~7 QUICK FIX OPPORTUNITY TO DESIGN/BUILD A "NEWSPAPER CLIPPING CUTTER" TO CUT THE THIN SKINS ON THE C-141 HORIZONTAL STABILIZER LEADING EDGES (MANPSA).

10.~~11~~7.1 Description of Current Operations

The thin .005 thick stainless steel cover skins for the C-141 Horizontal Stabilizer de-icer leading edge assemblies (8 per aircraft) must be removed in order to inspect and repair the embedded direct current wires and the heating elements.

10.~~11~~7.2 Description of Current Process Problems

The current way of skin removal is to cut and peel the cover skins using a wood chisel, tin snips, pliars, etc. to remove the skin without damaging the wires or the heating elements.

10.~~11~~7.3 Description of New Process

Design and make a depth cutter similar to the type cutter used to cut out newspaper clippings. This type cutter may be set to cut at a predetermined depth so as to cut the (.005) stainless steel thin skin cover and not cut the wires.

10.~~11~~7.4 Rationale Leading to Change

(Observation led to believing that a better way should be found.)

This new method of skin removal would allow the old skins to be removed in an easier manner thereby saving time and producing a neater and a more professional repair job.

10.~~11~~7.5 Estimated Cost Savings

A possible savings of two (2) man hours per leading edge section should be realized; for a total of eight (8) sections times two (2) equals sixteen (16) man hours saved per A/C.

10.~~11~~7.6 Implementation Cost/Schedule

The only cost would be the "Clipping-Cutter" design and machine costs which should not exceed $200. Machine time for the cutter should be under $100.

10.~~15~~ 8 QUICK FIX OPPORTUNITY TO USE "T" MATERIAL (FORM IN "W" TEMPER) IN LIEU OF "O" (MANPS).

10.~~15~~ 8.1 Description of Current Operations

Most all forming of aluminum for aircraft requires that the material be in soft condition, either in "O" condition or in "W" temper condition. Both conditions, "O" and "W" are of the same softness.

Most engineering drawings and/or material specifications call for the two material conditions to be used interchangeably.

10.~~15~~ 8.2 Description of Current Process Problems

It is hard to store "O" condition material, easy to damage, and handle because of it's softness therefore it is better to buy and store aluminum in the "T" condition. There is also the possibility of a part made out of the "O" material getting on the structural airframe of an air vehicle, inadvertantly.

10.~~15~~ 8.3 Description of New Process

The "O" material requires a heat treat operation after forming to bring the part to a hardened state or "T" condition. The "W" condition is produced by a heat treat operation from the "T" condition, formed into the desired state, then the material returns to a hardened "T" condition at room temperature without any further heat treat.

In the event that "W" condition aluminum alloy sheet is used in lieu of "O", the material must be stored in cold storage while it is awaiting it's time to be worked. It has a shorter work time when it removed from the "ice-box" due to the materials ability to return to a hardened state at room temperature.

It is suggested that certain selected parts such as reinforcement doublers and formed parts be looked at and made from "W" condition rather than "O" condition thereby reducing the inventory of "O" material and conceivably reducing material costs, by eliminating excess scrappage.

10.~~15~~ 8.4 Rationale Leading to Change

Other production and repair facilities do not use and stock aluminum sheet stock in the "O" Temper in the thickness of .064 or less because of it's softness.

10.~~15~~8.5 Estimated Cost Savings

The cost svings would be indicated on the present scrappage cost which would be eliminated.

Scheduling is not available at this time.

10.~~15~~8.6 Implementation Cost/Schedule

Implementation of this suggestion requires selection of parts and procedure change. Estimated implementation time approximately 2 months.

10.~~17~~ 9 QUICK FIX OPPORTUNITY TO CERTIFY MECHANIC DOING REPAIR WORK ON THE HORIZONTAL STABILIZER LEADING EDGES FOR "OHMMETER" AND "BRAZING" USE (MANPSA).

10.~~17~~ 9.1 Description of Current Operations

The mechanic (Amanda Knight) has to use an Ohmmeter to check the continuity of the wiring on the C-141 Horizontal Stabilizer leading edge sections. These sections form an electrically de-iced section of the horizontal stabilizer. All sections are repaired either by repairing the wires and welding breaks in the mesh.

10.~~17~~ 9.2 Description of Current Process Problems

The mechanic has to use the back shop on four (4) occasions for the use of the "Ohmmeter" or the "Welding Unit," usually making the trips herself, to verify the repair.

10.~~17~~ 9.3 Description of New Process

In repairing the leading edge sections, the mechanic has to use an Ohmmeter to determine the repair so why not make it official by certifying the mechanic in it's use as well as the welding required to make the repairs to the mesh heating element.

10.~~17~~ 9.4 Rationale Leading to Change

Discussed with Sonny Heard, Training, the possibility of training/certification of Amanda Knight and others, if necessary, to the use of the Ohmmeter and the Welding/Brazing unit which would eliminate the back shop work and the related expense of the mechanic hand carrying the parts to and from the electrical building.

10.~~17~~ 9.5 Estimated Cost Savings

The elimination of four (4) back shop operations would save 4 times 2 man hours = 8 manhours per part; 8 parts times 8 man hours equals 64 man hours saved per aircraft.

10.~~17~~ 9.6 Implementation Cost/Schedule

The mechanic has checked out an Ohmmeter for repair use. Kevin Warnock (926-4446) has moved a "welder" to Building 169 for the mechanic's use.

10.10 QUICK FIX OPPORTUNITY TO NEED HOLDING/SUPPORT FIXTURES FOR ALL RADOMES (MANPSD).

10.10.1 Description of Current Operations

The primary method of support for the radome repair in Building 670 is to place them directly on the floor. Some are elevated off the floor by the mechanics with 2 X 4's or other makeshift timbers.

Holding stands were made sometime back but are not being used and their whereabouts are now unknown.

10.10.2 Description of Current Process Problems

Some workers have expressed a desire to have the radomes elevated for better access and comfort.

10.10.3 Description of New Process

Holding stands/fixtures should be made to hold the radome on it's side and to allow the radome to be rotated. This method would be similar to the holding fixture currently being used with the C-141 nozzle repair effort.

10.10.4 Rationale Leading to Change

- The radome would be accessible from one side thereby making better use of space.
- Less worker fatigue.
- Work efficiency increased.
- Production rate increased.

10.10.5 Estimated Cost Savings

An increase of work efficiency from 10% to 15% is predicted which should increase throughput by a like amount for all radomes being worked in Building 670.

10.10.6 Implementation Cost/Schedule

The schedule and implementation costs will require further study based on an austere-type stand design.

10.~~21~~ QUICK FIX OPPORTUNITY TO PROVIDE CAPABILITY TO BRUSH ALODINE FOR BUILDING 603 (MANPSD).

10.~~21~~.1 Description of Current Operations

Parts requiring alodine treatment have to be taken to Building 180, which is about two (2) miles distance from 603.

10.~~21~~.2 Description of Current Process Problems

No alodine treatment is currently available because of the lack of waste treatment/disposal.

10.~~21~~.3 Description of New Process

Either one of the following:

(1) Step up the existing "Fast-Flow" pick-up and delivery system for the parts.

(2) Temporarily provide five (5) collection drums with adequate exhaust/vent system at Building 603 and transfer the toxic waste to a tank truck for disposal.

(3) Tie in to an existing waste disposal line at Building 645.

10.~~21~~.4 Rationale Leading to Change

- Flow time will be reduced.
- Throughput will be increased.
- Cost will be reduced.

10.~~21~~.5 Estimated Cost Savings

The estimated cost would be contingent on the decision as to the selection of (1), (2) or (3).

The (1) is estimated to be the least expensive and (3) the most expensive with (2) somewhere in between but only as a temporary measure. Number (3) would be the ideal method to provide treatment.

10.~~21~~.6 Implementation Cost/Schedule

Implementation cost and schedule is contingent on the process selected:

(1) Shortest time to implement.

(2) Somewhere in between (1) and (3).

(3) Longest time.

10.12 QUICK FIX OPPORTUNITY TO COMBINE REPAIR OPERATIONS FOR THE C-141 AFT COWL DOOR TO USE ONE (1) MECHANIC IN LIEU OF THE PRESENT TWO (2) (MANPSA).

10.12.1 Description of Current Operations

The current way of reworking the C-141, AFT Cowl Door, is to have one mechanic to tear down the old assembly and salvage the salvagable hardware and miscellaneous parts and another mechanic in another area to repair/rebuild the bonded honeycomb section of the door. (A third mechanic is also involved by removing the door from the cowl - in another area.)

After the bonded section is completed, it is transported back to the "Tear-Down" area and reassembled by the first mechanic (who is not bond certified).

10.12.2 Description of Current Process Problems

The current way of repairing the doors has no obvious problems with the exception of completion responsibility, and the excessive amount of flow time required between workers.

10.12.3 Description of New Process

The entire operation for repairing the door should be done in one area and the part not moved back and forth from one area to another. The "Tear-Down" mechanic should be trained and certified for bond operations.

10.12.4 Rationale Leading to Change

- Eliminate duplicity of effort.
- Decrease "Flow-Time".
- Provide more trained workers.
- Provide more versatile worker.

10.12.5 Estimated Cost Savings

At least one (1) full time mechanic will be released for other work.

Flow time will be increased at least by the time required for the part to flow between the areas which is usually 4-6 hours per door.

By certifying ALL workers for bonding, a more versatile utilization of the worker is possible who in turn is more capable of training others.

10.~~24~~12.6 Implementation Cost/Schedule

This may be done immediately with a very little cost effect to implement.

10.~~20~~13 QUICK FIX OPPORTUNITY TO MAKE AVAILABLE COBALT-TIPPED DRILL BITS, OR EQUIVALENT, FOR MECHANIC'S USE FOR DRILLING OUT FASTENERS (MANPS).

10.~~20~~13.1 Description of Current Operations

The present lot of resharpened drill bits, especially the sizes normally used to drill out rivets and other type fasteners are not properly ground on center and the tips are softer than the normal quality of new drill bits.

10.~~20~~13.2 Description of Current Process Problems

These off-center and soft bits wander off-center when the fastener is drilled out sometimes enlarging the hole and requiring a backing strip, or making necessary the next size larger salvage rivet in the enlarged hole.

These drill bits are soft and consequently do not last - only a few holes - and they are dull.

10.~~20~~13.3 Description of New Process

Provide the Sheet Metal Mechanic with a better quality drill bit such as a Cobalt tipped bit, or equivalent, to be used on High-Value assemblies when drilling out rivets, other type fasteners such as lock bolts or blind rivets and bolts.

10.~~20~~13.4 Rationale Leading to Change

The current quality of resharpened drill bits is extremely poor, contributing to oversize and nonconforming holes, causing unnecessary work and much time lost.

Making available better quality drill bits for the mechanic's use, especially the sizes used to drill out fasteners will same time, money and provide a better quality product.

10.~~20~~13.5 Estimated Cost Savings

It is estimated that around 20 man hours are lost per unit every week trying to make quality work with these inferior quality drill bits.

Observation and interviews have indicated that most mechanics are not using the resharpened bits but are obtaining better quality drill bits from other areas such as the F-15 wing effort which is supplied with better quality bits.

10.~~20~~13.6 Implementation Cost/Schedule

Not available at this time.

Following are the Potential Improvements for Focus Studies.

10.4 DB

~~10.3~~

QUICK FIX OPPORTUNITY TO PROVIDE HEAVY CARDBOARD RE-USABLE SHIPPING BOXES FOR SMALL/MEDIUM SIZE PARTS (MANPS).

10.3.1 Description of Current Operations

Parts are currently being moved from one area to another by hand-carrying or by laying loose on a rolling hand cart while they are being transported.

10.3.2 Description of Current Process Problems

10.3.3 Description of New Process

Heavy cardboard, reusable boxes should be used to protect the smaller parts when they are transported from one area or backshop to another area. These are sometimes called "Banana Boxes" because they are about the same shape and construction as the boxes used to ship bananas. These boxes would be similar to the ones used in the tubing/cable shop to contain and transport parts.

10.3.4 Rationale Leading to Change

10.3.5 Estimated Cost Savings

Using these boxes with styrofoam and/or "bubble wrap" will minimize damage to parts being transported.

10.3.6 Implementation Cost/Schedule

10.B 6B

~~10.7~~ **QUICK FIX OPPORTUNITY TO REVIEW AND ALLOCATE SUFFICIENT AND DEDICATED WORK SPACE FOR EACH WORK STATION (MANPS).**

10.7.1 Description of Current Operations

Much confusion exists now in certain areas because of the lack of dedicated and sufficient space for the mechanic and the work he/she is required to do. Traffic cross-flow is bad and in some instances there is no assigned or dedicated work space for the mechanic to do his/her assigned task.

10.7.2 Description of Current Process Problems

The work space for a given repair task must be adequate to allow the work to be performed in the most timely and cost effective manner.

10.7.3 Description of New Process

Each work station must be designed and space allotted to allow the mechanic to do his/her assigned task without interruption from people passing by, cross-flow traffic from fellow workers, insufficient space and confusion.

As a stop-gap measure, (before an in-depth facilities layout can be made), each work station must be identified and permanently marked so that the mechanic assigned to that work station may work with a minimum of interruptions. Rails or fences should be considered to outline the stations.

10.7.4 Rationale Leading to Change

Observation of several areas in Building 169, such as the areas for the petal doors and ailerons for the C-141, led to this present condition.

10.7.5 Estimated Cost Savings

Time will be saved and/or work efficiency will be increased along with the production rate.

10.7.6 Implementation Cost/Schedule

Implementation cost would involve about 16 man hours to layout and mark that stations. Equipment needed such as rails are assumed to be available. The time to implement would approximate two (2) weeks for each area from go-ahead.

10.C
~~10.8~~ 03

QUICK FIX OPPORTUNITY TO PUT MORE EMPHASIS ON QP4! (MANPS).

10.8.1 Description of Current Operations

Some RCC repair units do not have an active QP4 team. Those that do are not allotted the necessary time to be effective - manpower seems to be the problem.

NOTE: QP4 is currently being revised and restructured. It is suggested that more recognition and prestige be given the group.

10.8.2 Description of Current Process Problems

10.8.3 Description of New Process

More emphasis should be placed on the "QP 4" team effort and to use these groups with greater visibility and recognition as problem solvers.

Long standing complicated problems have a greater chance of being solved when a QP4 team is active in the area.

10.8.4 Rationale Leading to Change

10.8.5 Estimated Cost Savings

- More employee awareness and concern.
- Better quality realized.
- Better worker recognition and efficiency.
- Money saved.

10.8.6 Implementation Cost/Schedule

10.D
DB

~~10.9~~ QUICK FIX OPPORTUNITY TO INCLUDE THE MANUFACTURING SUPERVISOR IN ALL TASK FORMATIONS WHEN QUALITY/ PRODUCTION WOULD BE DISCUSSED OR/AND DECISIONS MADE TO AFFECT SAME (MANPS).

10.9.1 Description of Current Operations

Decisions are sometimes made that affect the production effort or the quality of a repair unit without the Supervisor being told or asked to participate in the decision making process.

10.9.2 Description of Current Process Problems

10.9.3 Description of New Process

Better solutions to MANPS problems may be realized so that when a task force is formed, it is formed from individuals most knowledgable and intimately concerned with a solution to the problem, such as the Production Supervisor if the problem involves the production effort; or the Tooling expert if the problem involves a tool change; and the Planner if ANY change is contemplated in the work sequence or planning. The task force should always be headed up by the Production Supervisor if the problem involves production or quality.

10.9.4 Rationale Leading to Change

10.9.5 Estimated Cost Savings

- Better utilization of the Supervisors.
- Better quality.
- More Supervisor awareness.
- More cooperation from all concerned.

10.9.6 Implementation Cost/Schedule

P.E 83

10.12 QUICK FIX OPPORTUNITY TO EVALUATE CLEANLINESS CONDITION IN WORK/STAGING AREA NEAR THE AUTOCLAVES IN BUILDING 169 (MANPSA).

10.12.1 Description of Current Operations

Most lay-up is done in the Lay-Up Room in Building 169 which is a controlled and compatible environment for the use of adhesives and bonding materials used in the manufacturing of MANPSA work.

Some small patches and repair work is done in the teardown areas and in the staging area of the autoclave. There is not as much concern or attention given to bonding conditions and cleanliness in this as there should be.

10.12.2 Description of Current Process Problems

10.12.3 Description of New Process

A study should be conducted to determine if the conditions are adverse and if a plastic curtain dropped from the ceiling would help the situation. The sanding, drilling and working of metals/composites should be moved further away from the area where adhesive bonding is being done.

10.12.4 Rationale Leading to Change

10.12.5 Estimated Cost Savings

The major benefit to isolating the bonding from the fabrication will be to create a somewhat controlled environment which a requirement to the use of structural adhesives.

10.12.6 Implementation Cost/Schedule

10.C 03

~~10.13~~ QUICK FIX OPPORTUNITY TO REVIEW SAFETY PRECAUTIONS IN THE USE OF METHEL-ETHEL-KETONE (MEK), DEPLETED URANIUM COUNTER-BALANCE WEIGHTS AND ASBESTOS CLAMPS USED IN BUILDING 603 ON THE C-141 WING LEADING EDGE (MANPS).

10.13.1 Description of Current Operations

Two safety situations are prevalent in the aileron repair and adjacent areas concerning: (1) The use of Methel-Ethel-Ketone, which should not be used. "Safety Solvents" are available and are not as toxic and just as effective as MEK; and (2) Inadequate marking and warning to the mechanics and handlers of the Depleted Uranium counterblance weight used as the balance material for the weight.

The planners have addressed the problem of the depleted uranium with a vinyl cover but it is not used effectively.

10.13.2 Description of Current Process Problems

10.13.3 Description of New Process

The applicable T.O. lists all the precautions that must be taken to prevent undue exposure to the radioactivity of the material and the mechanics are aware of this. There is no awareness of the "heavy-metal" effects of ingesting ground depleted uranium powder or the fact that grinding or drilling causes sparking which would cause ignition. The Base Safety Engineer should address this problem.

10.13.4 Rationale Leading to Change

10.13.5 Estimated Cost Savings

Employee safety.

10.13.6 Implementation Cost/Schedule

P.G 83

~~10.14~~ QUICK FIX OPPORTUNITY TO IMPLEMENT METHODOLOGY TO ELIMINATE MISSING PETAL DOOR STRAKE PARTS (MANPSA).

10.14.1 Description of Current Operations

The Petal Doors arrive at WR-ALC to be inspected and repaired consistently missing the Strake which should accompany the door. This is an expensive group of parts! This is an expensive operation for every C-141 Petal Door to come in for repairs a NEW Strake has to be manufactured and shipped back out to stores!

Where are the missing strake parts? Who removes them from the Petal Door Assembly? By what authority are they removed? Records show that some of these parts have a value of $20 to $30 each and in many cases as many as twenty (20) parts are missing!

10.14.2 Description of Current Process Problems

10.14.3 Description of New Process

An investigation into this matter has been made and an employee was given a cash award for bringing this matter to the attention of his managers but no resolution to the problem has been effected as of this date.

10.14.4 Rationale Leading to Change

10.14.5 Estimated Cost Savings

(See Attachments.)

10.14.6 Implementation Cost/Schedule

10.H

~~10.16~~ QUICK FIX OPPORTUNITY TO USE LOCKHEAD "STATUS" TO DETERMINE LATEST DRAWING/EFFECTIVITY (MANPS).

10.16.1 Description of Current Operations

There seems to be a bit of confusion at WR-ALC as to how to determine the effectivity of a part or of a drawing revision. This is especially pertinent to the drawings and parts for the Lockheed C-130 and C-141 aircraft. When the Air Force bought these airplanes from Lockheed, they also bought the drawings and the drawing submittal system, which would be in accordance with the applicable MIL Specification for the drawing requirements.

10.16.2 Description of Current Process Problems

10.16.3 Description of New Process

It is possible that a phone call to "Status" at Lockheed each time could get an answer to a problem involving a part as to whether it is required on a particular Model or not.

"Status" could also be used to verify the latest drawing revision or Engineering Order (EO) change to a drawing.

10.16.4 Rationale Leading to Change

10.16.5 Estimated Cost Savings

- Time saved.
- Money saved.
- More confidence in working with Lockheed drawings.

10.16.6 Implementation Cost/Schedule

P.I OB.

~~10.18~~ QUICK FIX OPPORTUNITY TO NEED "WINDOW AREA" PLOT FOR F-15 RADOME REPAIR USE (MANPSD).

10.18.1 Description of Current Operations

There are approximately 150 F-15 Radomes in an "X" condition (a condition of maximum damage) which will require a maximum effort to repair in the near future for MANPSD, (Building 670).

10.18.2 Description of Current Process Problems

The F-15 repair T.O.'s do not give a "stay-out" or "window" area for the Radome to help guide the repair. Other T.O.'s such as for the C-130 Radomes give this information to establish repair limitations and help guide the mechanic making the repair.

10.18.3 Description of New Process

There is a need to establish the repair limitations for the F-15 Radomes. Hugh Darsey, (6)5374, MMFRB, Cognizent Engineer is working with the test range, (Building 675), people to derive information to define the repair limitations.

10.18.4 Rationale Leading to Change

In the event the repair limits are not defined it is probable that Radomes will be repaired and not be usable thereby wasting time, money, and effort.

10.18.5 Estimated Cost Savings

Cost savings not determinable, at this time.

10.18.6 Implementation Cost/Schedule

Not determinable at this time.

10.5 013

~~10.20~~ QUICK FIX OPPORTUNITY TO MOVE F-15 CANOPY REPAIR EFFORT OUT OF BUILDING 670 (MANPSD).

Good Comment

10.20.1 Description of Current Operations

The F-15 Canopy repair effort occupies only a small portion of Building 670 and the repair effort does not have sufficient space.

10.20.2 Description of Current Process Problems

10.20.3 Description of New Process

Additional space is currently needed and by moving the canopy effort out of the building more space will be available for the radomes.

The F-15 Canopy should be moved to an area closer to the sheet metal repair, Building 169.

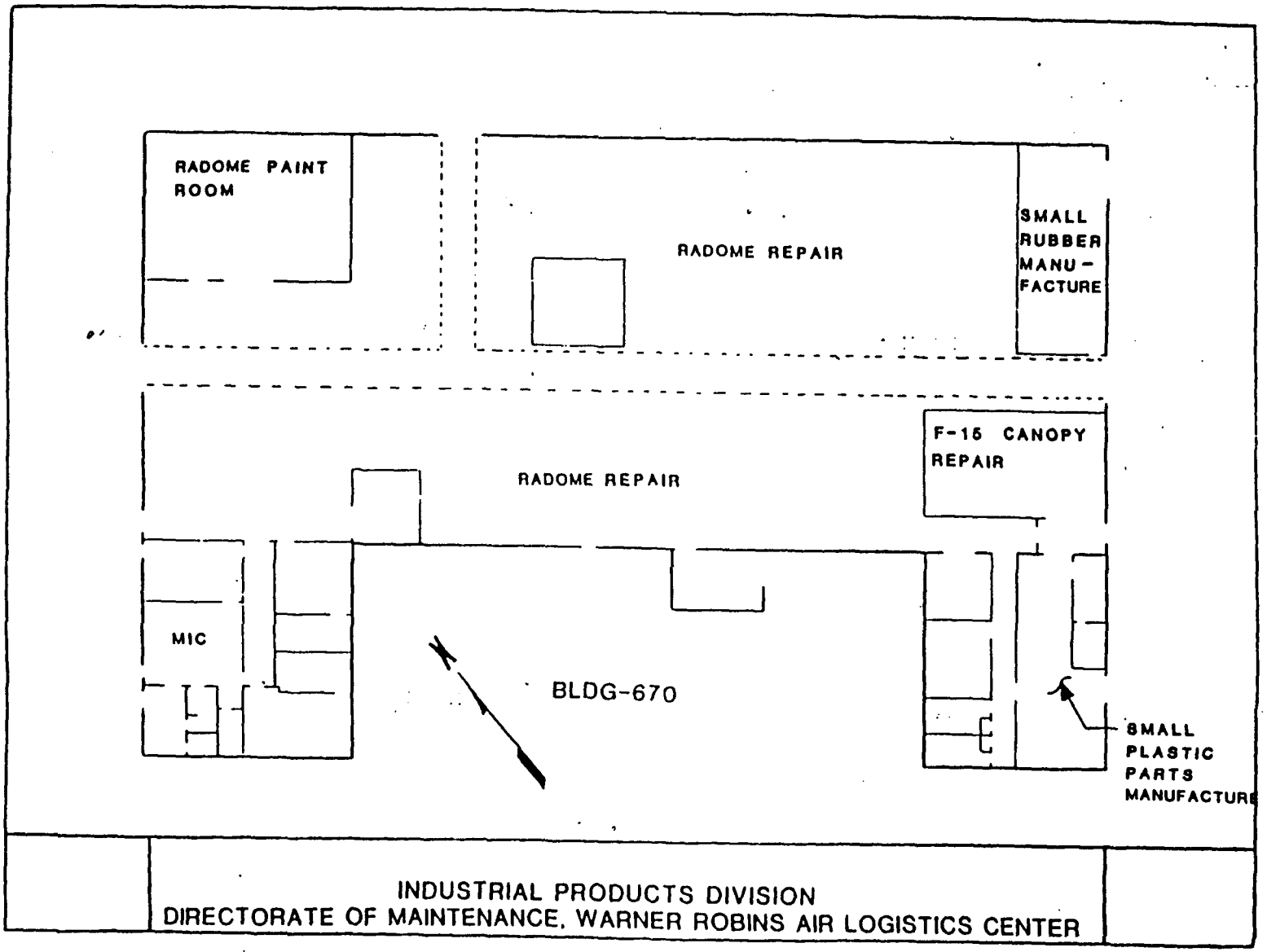
There is no GRID BOARD available to check the optical qualities of the transparancies when scratches are buffed out and the surface distorted.

10.20.4 Rationale Leading to Change

10.20.5 Estimated Cost Savings

Time will be saved and/or work efficiency will be increased and consequently the production rate increased. (See attached sketch.)

10.20.6 Implementation Cost/Schedule


RADOME PAINT ROOM
RADOME REPAIR
SMALL RUBBER MANU-FACTURE
F-15 CANOPY REPAIR
RADOME REPAIR
MIC
BLDG-670
SMALL PLASTIC PARTS MANUFACTURE
INDUSTRIAL PRODUCTS DIVISION
DIRECTORATE OF MAINTENANCE, WARNER ROBINS AIR LOGISTICS CENTER

10.K

GOOD LAYOUT OBSERVATION

~~10.22~~ QUICK FIX OPPORTUNITY TO REMOVE C-130 LEADING EDGE (UNUSED) JIGS FROM BUILDING 603 (MANPSD).

10.22.1 Description of Current Operations

There are several unused C-130 Leading Edge jigs stored in Building 603 that are occupying much needed space needed for 4 - 6 additional nozzle stations.

10.22.2 Description of Current Process Problems

10.22.3 Description of New Process

Remove these jigs from the building thereby allowing the C-141 Nozzle effort to be expanded, as planned.

10.22.4 Rationale Leading to Change

10.22.5 Estimated Cost Savings

Space is at a premium in Building 603 and this space will be used to increase production rate for the C-141 Nozzle effort.

10.22.6 Implementation Cost/Schedule

10.23 QUICK FIX OPPORTUNITY TO NEED BETTER/LARGER/CLEANER TOILET FACILITY FOR THE WOMEN MECHANICS IN BUILDING 603 (MANPSD).

10.23.1 Description of Current Operations

The women's toilet in Building 603 has only one (1) commode for 6-8 women to use. Water stands in the general area of the toilet when it rains. The women have to go to adjacent buildings or either wait!

10.23.2 Description of Current Process Problems

10.23.3 Description of New Process

Provide better toilet facilities.

10.23.4 Rationale Leading to Change

10.23.5 Estimated Cost Savings

Increased worker comfort station and sanitary conditions.

10.23.6 Implementation Cost/Schedule

10.M

~~10.25~~ QUICK FIX OPPORTUNITY TO MAKE AVAILABLE TO ALL ALC'S PAUL C. BEVAN'S "PATCH-PULLER-RING" FOR FIBERGLASS REPAIR (MANPS).

10.25.1 Description of Current Operations

(See Attachment.)

10.25.2 Description of Current Process Problems

10.25.3 Description of New Process

(See Attachment.)

10.25.4 Rationale Leading to Change

10.25.5 Estimated Cost Savings

(See Attachment.)

10.25.6 Implementation Cost/Schedule

I am - copy

PAUL C. BEVAN'S COPY

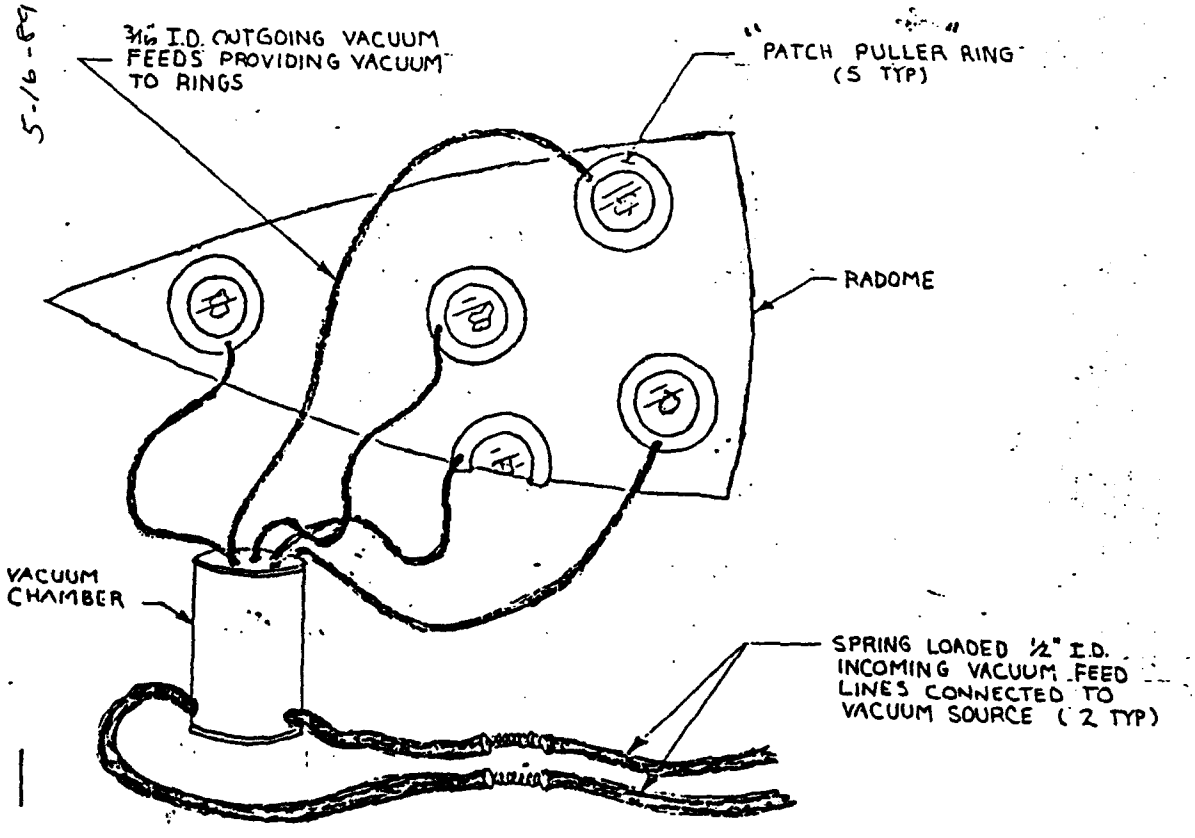
NOTE*** THIS IS A CONFIRMATORY SUGGESTION.

On 11-17-88, I discussed and demonstrated this concept in the presence of Jac Hambrick, David Turner, and Hugh Darsey. They were responding to an AFLC For 103 submitted by myself on 11-15-88. The 103 number is MANERS-8-558. I have attached a copy.

Problem: Present vacuum bag patching techniques are costly, both in labor ar material. The government can reduce these costs.

Solution: I have prototyped and developed two systems that greatly reduce material costs and labor costs on the repair of fiberglass items. One syste was designed and developed to be used on the F-15 radome. It will work on ar aircraft that has a radome of the same configuration as the F-15 radome. Af implementation of the system, 98% of labor cost and 98% of material costs wi be saved in the patch set-up procedure. Approximately seven labor hours per F-15 radome will be saved. This system is also effective in spot patching on all types of fiberglass and on many fiberglass items DoD-wide. Some examples are the C-130 radome, C-141 radome, C-141 tail cone, C-130 hat dome, and C-141 hat dome.

Some benefits of the F-15 patch puller follow:



1. Eliminates 98% of material used for patch set-up (tapes, spring, tacky tac

2. Eliminates 98% of patch set-up material handling, application, and remova

3. Eliminates any possibility of pulling up circs by eliminating adhesive tac presently used.

4. Functions effectively over grid wires, copper foil tape, radar balancing tape, and oil- or fluid-contaminated surfaces where adhesive tapes now used encounter problems.

5. Works effectively on interior and exterior surfaces

6. I have prototyped and developed the part and mold; no additional tooling : needed.

7. Would be effective for field use in the form of an inexpensive kit. The kit would consist of cloth, resin, Mylar film, and patch puller ring. The system could be operated by a portable vacuum pump.

8. The system could be used throughout the Air Force on any aircraft having a radome with a similar configuration.

9. The system could be used DoD-wide (Navy, Army, ANG, etc).

10. The system is effective in spot patching

11. All components of the system are durable and reusable.

The second system I have developed operates off the same vacuum concept. I have developed a 2-inch-wide band of urethane that vacuums to the radome surface. The system incorporates the vacuum band, a dual vacuum feed, 1-inch masking tape, zinc chromate, and spring. One vacuum source will have a trap built into the line to allow for bleed-outs. Set up and operation is as follows:

1. Vacuum band down to face of radome operating off a straight line vacuum source (no trap). The band will surround the repair area.

2. Once in place, apply the zinc chromate to the outside face of the band.

NOTE: After the chromate has been applied to the vacuum band on the band first use, the chromate will stay in place and require very little handling f the next several patches. Periodic reapplication of the chromate may be required to insure effectiveness of the device. The zinc chromate serves as an adhesive for alcohol sheet or Mylar film.

3. Next apply the spring with 2-inch pieces of 1-inch-wide masking tape just outside the repair area and within the vacuumband.

4. Attach the vacuum feed with the trap to this spring. This will allow for excess air resin to be bled from the patch. The system will now be ready for use.

5. Apply patch material to repair area (per TO 1-1-24).

6. Activate bleed-out vacuum and stretch Mylar sheet over the repair, adheri the sheet to the chromate. The patch is complete.

This method will reduce tape use by 90%. Labor required for patch set up anc break down will be reduced by 70%. This will equate to an average of 6 labor hours saved per dome on the C-130 and C-141. I am in the process of making different sizes and shapes to accommodate different size and shape repairs. 1-1-24, pg 4-19, para 4-86 suggests that mechanics keep their repairs betwee 144 sq in and 324 sq in for best results. THis is not always practical. I have developed a vacuum band that will allow patches of 500 sq in to be pulle Based on the prototypes and the success of the system, pulling patches with areas of 1000 square inches and greater is realistic. The pullers are alreac applicable to 90% of the interior and exterior of the C-130 and C-141 radomes

Some benefits of the vacuumized band follow:

1. Eliminates 70% of material handling in patch set-up on C-130 and C-141 radomes (approximately 6 hours per radome will be saved).

2. Eliminates 90% of tape used during patch set-up.

3. Functions effectively over contaminated surfaces where tape may lose its adhesion.

4. Works effectively on interior and exterior surfaces.

5. Would be applable DoD-wide.

6. The vacuumized band is reusable and very durable.

7. Can be applied to numerous fiberglass items.

10.N

~~10.26~~ QUICK FIX OPPORTUNITY TO ENCOURAGE SUGGESTIONS LIKE WENDELL PITTMAN'S INVESTIGATION AND PERSISTENCE IN HIS INVESTIGATION OF MISSING PETAL DOOR STRAKE PARTS. CONTINUE INVESTIGATION TO ELIMINATE MISSING PETAL DOOR STRAKE PARTS (MANPSA).

10.26.1 Description of Current Operations

The Petal Doors arrive at WR-ALC to be inspected and repaired consistently missing the strake which should accompany the door. This is an expensive group of parts! This is an expensive operation for every C-141 Petal Door to come in for repairs a NEW strake has to be manufactured and shipped back out to stores!

Where are the missing strake parts? Who removes them from the Petal Door Assembly? By what authority are they removed? Records show that some of these parts have a value of $20 to $30 each and in many cases as many as twenty (20) parts are missing!

10.26.2 Description of Current Process Problems

10.26.3 Description of New Process

An investigation into this matter has been made and an employee was given a cash award for bringing this matter to the attention of his managers but no resolution to the problem has been effected as of this date.(See Attachment.)

10.26.4 Rationale Leading to Change

10.26.5 Estimated Cost Savings

(See Attachment.)

10.26.6 Implementation Cost/Schedule

THIS IS A COPY FROM THE "ORIGINAL"

TO: ALC/DPF/Donna Layfield

FROM: Wendell T. Pittman (926-4812)

DATE:

REF.: Reopen and Reevaluate Suggestion #863055

Ms. Layfield:

I would like to have this suggestion re-opened and re-evaluated.

I have been trying to get someone to realize that the Government could have been saving money since 1984. Nothing has seemed to have any effect.

The latter part of 1987 I contacted the Fraud Waste and Abuse Division and they checked into the matter. After an inquiry and finding that on a lot that Petal Doors coming to Depot Maintainance are stored on over half the doors. Out of 22 doors, 12 were minus strakes. If I remember right they had the suggestion re-submitted and it was further implemented by on through the General.

Some time around the first of the year I was instructed that a $250.00 settlement could be made on the suggestion or a $100.00 awared would be paid and the suggestion would be further evaluated. After a period of time I was told that the implementation process had been completed and that the personnel in the field could not or would not comply with the directives so therefore my suggestion warranted no further compensation.

On the 11th of December, 1980, the doors were numbered and logged coming into the shop. From then until 17 August 1984 some of the doors were marked with or without strakes. I wasn't there all this period of time so I can't verify that everything was logged. But I can authenticate the validity of these facts. From Door #819 thru Door #1131 ther were 96 doors sent to Depot Maintainance minus strake assemblies. At approximately 3.000.00 per strake this was a loss of 288 thousand dollars. From 17 August 1984 through January 1, 1988 I have no accurate count as to missing strakes except for the fact that out of even 20 doors 12 were missing strakes. Since my suggestion was implemented, there has been a drastic change from January 1988. July 15, 1988 the Petal Door shop has been delivers 34 doors for repair.

Out of these 34 doors only 3 have been minus strake. So as you can see this has been a tremendous reduction in lost strakes since my suggestion was put in force. Since 1981 my guess would be that over one half million dollars have been lost due careless and unattention. From 12 out of 20 doors missing strakes in the latter part of 1987 to 3 out of 34 door missing strakes should warrant a monetary re-evaluation. If you would please look into this matter for me.

Thanking you in advance,

Wendell T. Pittman
MANPSA/WR-ALC WRAFB/926-4812

cc: Shirley L. Wade, Manager
Air Force Management
Engineering Agency
Randolph AFB, Texas

Honorable Sam Nunn
U. S. Senate
Washington, D.C.

51454A Left Hand Strake Assembly

1560009466505	3F40353	279	$132.49
1560009466503	"	281	78.92
1560009466501	"	283	148.21
1560004656499	"	285	204.99
1560004653971JH	"	141	34.51
1560001823974JH	"	143	24.07
1560004605362JH	"	145	37.07
1560004653418JH	"	147	46.16
1560004653969JH	"	243	23.71
1560004600716JH	"	149	91.00
1560004603420JH	"	151	98.68
1560004660743JH	"	153	90.10
1560004653977JH	"	269	49.18
1560004907654JH	"	199	92.53
1560004907656JH	"	201	92.61
1560004907657JH	"	203	49.75
1560004907667JH	"	257	60.77
1560004907670JH	"	271	17.63

51455A

Right Hand Strake Assembly

1560009466504	3F40353	280	$ 94.36
1560009466502	"	282	109.15
1560009466500	"	284	86.70
1560009466508	"	286	189.30
1560001825369JH	"	146	59.13
1560004653973JH	"	142	35.11
1560002243239JH	"	148	51.91
1560004653975JH	"	144	29.81
1560004653968JH	"	244	25.68
1560P0775322065	"	258	57.78
1560004603419JH	"	150	77.39
1560P0949672065	"	152	175.93
1560004603421JH	"	154	78.92
1560004653981JH	"	270	32.69
1560004657655JH	"	200	25.77
1560004907658JH	"	204	46.40
1560004907669JH	"	258	57.36
1560004907671JH	"	272	82.09
1560P077532F	3F40352	228	83.62

10.0

~~10.27~~

QUICK FIX OPPORTUNITY TO MAKE USE OF AND ASSIGN MORE MANUFACTURING RESPONSIBILITY TO THE PLANNING SECTION FOR ALL MANUFACTURING/ENGINEERING COORDINATION (MANPS).

10.27.1 Description of Current Operations

When the manufacturing people (mechanics) have problems pertaining to the engineering and other data requirements for a particular unit being repaired they most often contact the technical support people, such as the manufacturing, tooling, facilities, or materials engineer in a DIRECT contact manner.

Usually the mechanics are not as well-versed as the planner as to the overall part requirement and design intent and consequently should take the problem through the planner for him to make the contact.

10.27.2 Description of Current Process Problems

10.27.3 Description of New Process

Make better use of the Planning Section to help solve ALL problems involving the technical implementation of the Work Control Document (WCD).

10.27.4 Rationale Leading to Change

10.27.5 Estimated Cost Savings

When the planner is contacted he will be in a better position to:

- Assist the mechanic to prevent work stoppages.
- Revise the WCD, when required.
- Coordinate the production effort.
- Influence the standard hour requirement.
- Help solve tooling problems and requirements.
- Etc.

10.27.6 Implementation Cost/Schedule

10.P

~~10.29~~ QUICK FIX OPPORTUNITY TO STUDY TO OBTAIN BETTER QUALITY/DELIVERY FOR THE PETAL DOOR INNER/OUTER SKIN ASSEMBLIES FROM THE NEW SUBCONTRACTOR (MANPSA).

10.29.1 Description of Current Operations

The new inner skin and outer skin bonded assemblies for the Petal Door, which are made off-site at a Sub-Contractor, require inspection and repair work on the new assemblies before they are acceptable to be used. These new skins are sometime dented, scratched, have voids, have delaminations, etc. that require time and effort to fix before they can be used as acceptable parts. Also, the potted location for the attachment fasteners require re-potting in the honeycomb skin area due to not falling within the potted area. A cursory investigation shows that an increase in the potting area diameter from about one-half inch to about one inch could possibly eliminate the problem of re-potting. Most of the damage problems aforementioned are the fault of WR-ALC but the voids, delaminations, or core damage are most likely the fault of the Sub-Contractor.

10.29.2 Description of Current Process Problems

10.29.3 Description of New Process

Redesign the Petal Door Assembly jig to allow a greater amount of work to be performed in the jig without having to remove the parts so often. At the present time the skin assemblies and the frame parts require removal and replacement approximately six (6) times for each door. This could be reduced by adding a "Box-Jig" adaptation that would allow the skins to be folded back out of the way rather than removing the skins and the frame from the jig each time. More jigs are required for the current workload of Petal Doors.

10.29.4 Rationale Leading to Change

10.29.5 Estimated Cost Savings

An investigation team should be formed to ascertain how much time and money is being spent to rework these "New" Inner Skin and Outer Skin Assemblies and visit the new Subcontractor, if necessary.

A cursory investigation has also discovered that these skin assemblies frequently are not made to the correct contour! After reviewing the bonding capabilities and the autoclave facilities MDMSC has concluded that both of these skin assemblies should be made at WR-ALC!

10.29.6 Implementation Cost/Schedule

10.Q
AB

~~10.30~~ QUICK FIX OPPORTUNITY TO MAKE BETTER USE OF QUALITY PEOPLE TO HELP SOLVE PROBLEMS RELATED TO THE REPAIR EFFORTS (MANPS).

10.30.1 Description of Current Operations

The Supervisors and their Designees often do not call the Quality Assurance Specialist to help solve problems arising from the repair effort.

10.30.2 Description of Current Process Problems

10.30.3 Description of New Process

The Quality Assurance Specialist should be used by issuing a Request for Quality Assistance (RQA) (AFLC Form 354).

The Quality Assurance Specialist will use the skills and facilities available to develop valid solutions or recommendations on all RQAs. Examples include: Quality Engineering, Methods Improvement Laboratory, chemical or materials laboratories, and subject matter specialists from other divisions or directorates. All corrective actions will be thoroughly coordinated with all activities having a primary or collateral responsibility.

10.30.4 Rationale Leading to Change

10.30.5 Estimated Cost Savings

Time will be reduced and/or work efficiency will be increased and as a result the production rate increased. (See attached copy of MAOI 74-2.)

10.30.6 Implementation Cost/Schedule

WARNER ROBINS AIR LOGISTICS CENTER
Directorate of Maintenance
Robins Air Force Base GA 31098

MA OPERATING INSTRUCTION 74-2

23 June 1988

Quality and Reliability Assurance

REQUEST FOR QUALITY ASSISTANCE (RQA)

This MAOI outlines procedures for submitting a Request for Quality Assistance (RQA). This instruction applies to all employees and organizations in the Directorate of Maintenance (MA).

1. **GENERAL.** The purpose of the RQA program is to provide all employees with a medium to seek solutions for a known or suspected problem on any product, process, system, or procedure that may adversely impact the quality of products or services produced by this activity.

*2. **REQUIREMENTS.** AFLC Form 354, Request for Quality Assistance (RQA), is a means of initiating requests to the Product Quality and Reliability Division (MAQ) when initial investigative actions have failed to remedy the problem. Anyone who recognizes or suspects a problem may initiate an RQA. The RQA will not be used for resolution of personal grievances, subjects covered by the Master Labor Agreement, matters under the jurisdiction of 40-series regulations, or items covered by other programs (component failures-use QDR, tech data errors-use AFTO Form 22, etc).

3. **PROCEDURES:**

a. Individuals requesting Quality Assistance will:

(1) Prepare AFLC Form 354 when a suspected or known deficiency is compromising the quality of a product produced by MA.

*(2) Complete all blanks of Part I of AFLC Form 354 and forward to the applicable Quality Branch (MAQ_). Routing through section and/or branch office is at the option of the applicable division. The form may be handscribed.

(3) State the deficient condition in sufficient detail to aid investigation; that is, include attachments, national stock numbers (NSNs), technical orders (TOs), etc.

(4) Assist Quality Assurance Specialist during problem review.

b. Applicable Quality Branch (MAQ_) will:

(1) Maintain an RQA log book reflecting the RQA control number, date request received, subject, initiator's name, office symbol, suspense date, and date project closed.

(a) The control number will be comprised of the Quality Branch symbol, the last two digits of the year, and the numerical sequence of the project (for example, MAQB-86-1).

(b) A suspense date of not more than 25 workdays will be established.

(2) Contact the originator of the RQA to obtain additional information as required.

(3) Perform a comprehensive evaluation concerning the problem identified through the RQA.

Supersedes MAOI 74-2, 18 Apr 86.
OPR: MAQSS (Sue Pierce)
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(4) Coordinate all findings/recommendations with responsible pervisors.

(5) Provide the initiator a thorough report, with recommendations, if applicable, within established suspense date. Also, provide copies to other organizations with an interest in or collateral responsibility for the problem or for actions associated with the solutions or recommendations. If evaluation cannot be completed within required suspense date, provide initiator with an interim status report.

(6) Initiate requests to effect changes to technical orders, regulations, or other directives when needed.

(7) Provide all recipients of the initial report with copies of all follow-on correspondence.

(8) Maintain a file on completed RQA actions in accordance with MAQOI 74-1.

c. The Quality Assurance Specialist will use the skills and facilities available to develop valid solutions or recommendations on all RQAs. Examples include: Quality Engineering, Methods Improvement Laboratory, chemical or materials laboratories, and subject matter specialists from other divisions or directorates. All corrective actions will be thoroughly coordinated with all activities having a primary or collateral responsibility.

d. Applicable personnel shall assist the Quality Assurance Specialist during evaluation process and assure corrective actions are taken when a problem is identified to their particular area.

FOR THE DIRECTOR

WALTER R. PEACOCK, Jr., Col. USAF
Chief, Resources Management Division
Directorate of Maintenance

1 Attachment
AFLC Form 354 (Sample)

REQUEST FOR QUALITY ASSISTANCE (RQA)

TO	FROM (Name, Organization, Extension)	DATE
MAQ_N	Jane Doe/MANPM/3491	4 Apr 86

SUBJECT: (System/Item/Process)

PROBLEM/CONDITION/RECOMMENDATION (If needed, continue on reverse. Do not write below this block.)

(Define problem in sufficient detail, state previous actions taken to resolve problem, attach all pertinent information - drawings, previous correspondence, etc.)

SIGNATURE: (Signature of Initiator)

REPORT

TO	FROM	CONTROL NUMBER	DATE
MANPM	MAQ_NM	MAQN-86-3	14 Apr 86

BENEFITS DERIVED/EXPECTED (If applicable)

(Provide findings, recommendations, action taken, and benefits derived.)

CORRECTIVE ACTION ON THIS REPORT IS: [X] COMPLETE [ ] PENDING [ ] NOT REQUIRED — MAQ MANHOURS: 14 hrs

SIGNATURE	ORGANIZATION	EXTENSION
(Section Level)	MAQRM	2441

AFLC FORM JAN 88 354 PREVIOUS EDITION WILL BE USED

SAMPLE — NOT TO BE REPRODUCED.